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ABSTRACT

To identify conceptual elements and trends leading to career education so that assumptions which the term represents are clear to program developers and decision-makers, an analysis was made of available historical, philosophical, conceptual, and theoretical literature. The analysis offers substantiation that the antecedents of career education reside in both vocational education and guidance, and that the term "career education," so far as it is presently articulated, does have significant support from these knowledge domains. During the past century, much of the support for the antecedents to career education has come from the needs of a labor market changing from an agricultural to a technical character. A review of existing projects reveals that only a few meet the levels of integration, synthesis, or longitude now expected of career education. There has been more emphasis on career programs at the elementary and junior high levels than at the senior high school level or beyond. The evolution of career development theories has stimulated programs of a prevocational character placed earlier in the life of children. Many research requirements are stimulated by career education, and these needs are listed. (SB)

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review and synthesis of foundations for

CAREER EDUCATION

Preliminary Edition

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PREFACE

Career education is a movement designed to reform and redirect educational practice. It represents a synthesis of antecedent concepts in American education. In recognition of this, The Center commissioned this review and synthesis of the historical, philosophical, and theoretical bases for career education. The author traces the development and growth of career education and both distinguishes it from and relates it to vocational education. It is hoped that this synthesis will clarify for program developers and decision-makers the assumptions and belief systems which career education represents.

Major emphasis is given to the implications of the 1963 Vocational Education Act and the 1968 Amendments. Specific curriculum projects resulting from such legislation are discussed here. Many of these, tested and in operation throughout the country, are directed toward upper elementary school curricula. Objectives and assumptions are noted for each cited project. Theoretical bases are discussed in terms of career, developmental, personality, and decision perspectives.

The profession is indebted to Edwin L. Herr for his scholarship in the preparation of this report. Recognition is also due Aaron J. Miller and Frank C. Pratzner, The Center, for their critical review of the manuscript prior to its final revision and publication. Wesley E. Budke, information specialist at The Center, coordinated the publication's development.

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and Technical Education

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REVIEW AND SYNTHESIS OF FOUNDATIONS FOR CAREER EDUCATION

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INTRODUCTION

During the period since January, 1971, the U.S. Office of Education has undertaken to implement a major reform and redirection of the American educational structure. The term which has been used to describe this movement is career education. The term itself is new but its substance represents a complex set of inputs which need to be traced historically through those lines of philosophy and theory which are pertinent.

The purpose of this document is to identify, review, and synthesize major antecedents to career education which are available in history, philosophy and theory. The focus is not on analyzing current career education models being pilot-tested at different sites across the United States. The intent of this effort is to identify elements of conceptual support and trend lines leading to career education so that the assumptions and belief systems which the term represents are clear to potential program developers and decision-makers. The philosophical elements have been sought through historical and legislative analyses, examination of the observations of current social observers, and through extrapolation from the objectives which currently guide program and projects pertinent to career education. The theoretical elements have been identified through examination of pertinent literature in career development and decision-making.

The document bases for this paper were the collections of the Educational Resources Information Center (ERIC), the ERIC Clearinghouse for Vocational and Technical Education, and the Pattee Library of The Pennsylvania State University. The Center for Vocational and Technical Education at The Ohio State University conducted a computer search of *Research in Education* (RIE), *Abstracts of Instructional Materials in Vocational and Technical Education* (AIM), *Abstracts of Research Materials in Vocational and Technical Education* (ARM) and *Current Index to Journals in Education* (CIJE). The descriptors used in the search were: Historical Reviews, Educational Philosophy, Theories, Occupational Choice, Career Planning, Career Choice, Occupational Clusters, Conceptual Schemes, Occupational Aspirations, Educational Innovation, Occupational Information, Vocational Counseling, Occupational Guidance, Prevocational Education, and Classroom Guidance Programs. Together these descriptors yielded 97 citations. Many of these pieces were not directly pertinent to the focus of this paper. Thus, additional book or article references not in the above systems were used.

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REVIEW AND SYNTHESIS OF FOUNDATIONS

FOR CAREER EDUCATION

STATEMENT OF THE PROBLEM

The term "career education" has come into educational parlance with abruptness. The U.S. Office of Education has indicated that its implementation is among the top priorities for the department's program of educational leadership (Muirhead, 1971). As evidence of this priority in fiscal year '72, state education officials were provided $9 million to be allocated proportionately to those states which would use the money to develop, test, and demonstrate at least one career education project including a strong guidance and counseling component (U.S. Department of Health, Education and Welfare, 1971). Commissioner Marland has entitled career education "A New Frontier" (1971b). For these reasons and others, some observers have assumed that this concept has no antecedents; that it stands beside vocational education and academic education in a parallel fashion as an education entry new and independent from anything which has gone before. Such an assertion is untrue. Career education has an evolutionary history. However, it is not simply old wine in new bottles.

The term "career education" represents a synthesis and blend of many concepts and elements available at some point and in some place in American education. However, the intent and the implementation tactics so far apparent are to bring these concepts and elements into a new and systematic interrelationship among vocational education, vocational guidance, career development and other elements of the educational and community networks of which they are a part.

Career education embraces a complex group of concepts which have not yet been captured in a standardized definition of the term. Operational interpretations of the concepts are underway, however, and extrapolations of what the term does and does not mean can be identified. To gain reference points by which to consider the term career education, the following section samples some of the ways by which it has been described.

Commissioner Marland (1971b) has indicated that the

> concept of career education would encourage the opt-out to leave the system whenever he wishes, provided he is ready for satisfying and appropriate work, but he would also be welcomed back into the system cordially and routinely at whatever point he wishes to

> reenter, at whatever age. Perhaps career education will set aside forever the whole question of the dropout.

He has also indicated that under career education, we must guarantee: job entry skills for high school graduates and dropouts, technical skills for all graduates of two-year colleges and technical institutes, and career skills for all college graduates; that school will be made meaningful for students, particularly in a career sense; that schools will establish placement services that will actually get young people into jobs; that new approaches to career education will be installed from kindergarten through graduate school. Under this concept of restructuring the elementary and secondary school curricula the intent is

> to familiarize youngsters with basic information about occupations in the primary grades, to help them get exposure to real work situations in the middle years, and to prepare them in senior high school either to enter their chosen field with a marketable skill at graduation or sooner, or go on for a technical or professional training at the college level. (Marland, 1971b)

Earlier, Commissioner Marland (1971a) had summarized some of the above by stating,

> If in the time I am here I can bring about a change in the public attitude so that at least 50 percent of young people choose career education and if that abomination we call general education were forever dissolved and if every child upon completing high school were ready for a job or for higher education, then I will have felt that I have made a difference.

Associate Commissioner Worthington (1971), in a speech before the annual meeting of State Directors of Vocational Education, described career education as

> a bold new design for education that will effect a blend of academic, general and work skills learning so that individuals passing through the system will be ready for economic self-sufficiency, for a personally satisfying life, for new learning experience appropriate to career development and avocational interests.

At the same meeting where Associate Commissioner Worthington spoke, the National Association of State Directors of Vocational Education (1971) adopted a position paper on career education which stated:

. . . we believe, further, that the following characteristics are inherent and essential aspects of career education:

1. Career education is not synonymous with Vocational Education but Vocational Education is a major part of career education.

2. Career education enhances rather than supplants public school educational programs.

3. Career education is an integral part of the total public education enterprise.

4. Career education involves all students--and all educators.

5. Career education involves extensive orientation and exploration of occupational opportunities.

6. Career education emphasizes individual instruction and student determination.

7. Career education is a continuum that begins at kindergarten and extends throughout employment.

8. Career education contributes to student incentive and aspirations.

9. Career education includes specific preparation for occupations.

10. Career education assures realistic occupational choices.

11. Career education promotes wholesome attitudes toward all useful work.

12. Career education permits each student to realistically assess personal attributes as a part of setting life goals.

13. Career education provides a means of articulation from grade to grade and level to level.

The Division of Vocational and Technical Education, Bureau of Adult Vocational and Technical Education, in a draft paper on career education indicated that:

> it is a comprehensive educational program focused on careers, which begins in grade 1 or earlier and continues through the adult years. For elementary and secondary education, the program includes a structuring of basic subjects, grade 1-12, around the theme of career opportunities and requirements in the world of work . . . Career education not only provides job information and skill development but also helps students to develop attitudes about the personal, psychological, social and economic significance of work.

Career education is not only intended to operate within the articulation of a formal education structure from K-14 or on into the graduate school, but its linkages with the community and with industry are also being identified. The USOE through the National Center for Educational Research and Development is at present funding the development of three models of career education to identify and evaluate career education as school based, employer based, home/community based and residential. Each of these projects will examine different emphases and conceptions of career education and the connections among them.

In "The Career Education Program Status Report," July 30, 1971 (U.S. Office of Education, 1971c), three of the models of career education are discussed in detail. The report indicates that the models are to be developed and tested in real situations and refined to make them exportable to other locations. The emphases assigned to the school-based, employer-based, and home/community-based models are described in the following paragraphs.

The School-Based Comprehensive Career Education Model, which is being administered by the National Center for Educational Research and Development (NCERD) through a grant to The Center for Vocational and Technical Education located at The Ohio State University, will seek to develop within students:

1. A concept of self which is in keeping with a work oriented society.

2. Positive attitudes about work, school, and society, and a sense of satisfaction resulting from successful experiences in these areas.

3. Personal characteristics of self-respect, self-reliance, perseverance, initiative, and resourcefulness.

4. A realistic understanding of the relationships between the world of work and education.

5. A comprehensive awareness of career options in the world of work.

6. The ability to enter employment in an appropriate occupation at a productive level and/or to pursue further education.

The Employer-Based Career Education Model, the feasibility of which is being examined by a consortia of two educational laboratories (Research for Better Schools, Philadelphia, and the Far West Laboratory, Berkeley) as well as the Center for Urban Education in New York City, has as its goals:

1. To provide an alternative education program for students, ages 13-18, in an employer-based setting.

2. To unify the positive elements of academic, general, and vocational curricula into a comprehensive career education program.

3. Develop a strong self-concept through participation in an individualized and self-directed learning program.

4. To increase the relevance of the world of education to the world of work.

5. To broaden the base of community participation, particularly by involving public and private employers more directly and significantly in education.

6. To emphasize educational experiences that take place within a variety of nontraditional settings.

7. To design a guidance system that will mediate actively between the student and his work-education-community environments.

The Home/Community-Based Model, which is being studied by The Education Development Corporation, Newton, Massachusetts and by the Rand Corporation, has as its purposes:

1. To develop educational delivery systems into the home and community.

2. To provide new career education programs for adults.

3. To establish a guidance and career placement

system to assist individuals in occupational and related life roles.

4. To develop more competent workers for the world of work.

5. To enhance the quality of the home as a learning center.

Swanson (1971) has contended in a partial response to the career education models just identified that career education is the responsibility of the school primarily. His reasons include:

1. It is the only place where individuals can discover self in relation to world of work.

2. It is the only institution to provide the multiple delivery systems needed for career education, i.e., instruction, guidance, placement, community interaction.

3. It can implement the concept of decision-making.

4. It has interchangeable parts needed for statewide emphasis.

5. It cannot accept the obligations of career without expanding program, particularly in training for job entry skills and in adult education.

6. All models rely on a school model.

Herr (1971) indicated that career education represents the institutionalization of career development and the marrying of it with occupational education. He maintained that the career model is broader than the occupational model because it includes not only the acquisition of occupational skills, but also the factors--attitudes, knowledge, self-concepts--which motivate or impede decision-making and choice. It has to do, then, with helping persons develop preferences and execute plans by which they can implement these preferences. It is not confined only to students going directly to work. All students regardless of goal need to be helped to find purpose in what they are doing. In addition Herr contends that in order to choose as freely as possible, one needs knowledge not only about what is available to choose but also about the characteristics of oneself which might be emphasized in thinking about one's choices. This requires knowledge about:

1. The self

2. The environment

3. The decision-making process itself

Career education incorporates an intent to facilitate such bases for choice and for employability in combination with the acquisition by children of competence in basic academic skills. Career education in Herr's terms includes education for choosing and education for productivity.

Although at this writing, federal legislation has not been passed supporting massive efforts to implement career education, the Arizona legislature has passed such enabling legislation (State of Arizona, 1971). The major objectives of the career education portion of this act are:

1. To insure that at least 40 percent of high school enrollment is enrolled in career education classes.

2. To make available testing and counseling to every common and high school pupil in the state. . . . Hopefully such counseling may even be extended to the common school level beginning in the fourth grade.

3. To institute in the common school system a program course entitled, "Orientation To The World of Work."

4. To provide a program for retraining common school teachers and counselors to integrate into all aspects of the school curriculum the materials regarding the orientation of students to the world of work.

5. To develop pre-apprenticeship programs so that high school pupils can actually participate in registered apprenticeship programs and such coordination and cooperation shall be in cooperation with the labor unions administering the apprenticeship programs.

6. To provide additional teacher-coordinators to implement on-the-job experience for pupil-trainees.

7. To conduct inservice workshops and share career education leadership with all common and high school districts in each county.

One might assume that the Arizona legislation is the forerunner of similar legislation in other states which will be

stimulated by federal legislation as well as the momentum of the career education concept gaining visibility. While this legislation does not embrace all the elements previously identified briefly, it does emphasize orientation to work, preparation for work, retraining of those educational personnel to be involved with the program, guidance and counseling, curriculum changes, on-the-job training, and linkages to the state manpower and labor systems as apprenticeship programs.

In summary, the descriptions of career education cited here suggest that the term can mean, in relationship to different contexts and purposes, at least the following:

1. An effort to diminish the separateness of academic and vocational education.

2. An area of concern which has some operational implications for every educational level or grade from kindergarten through graduate school.

3. A process of insuring that every person exiting from the formal educational structure has job employability skills of some type.

4. A direct response to the importance of facilitating individual choice-making so that occupational preparation and the acquisition of basic academic skills can be coordinated with developing individual preference.

5. A way of increasing the relevance or meaningfulness of education for greater numbers of students than is currently true.

6. A design to make education an open system in that school leavers, school dropouts, adults can reaffiliate with it when their personal circumstances or job requirements make this feasible.

7. A structure whose desired outcomes necessitate cooperation among all elements of education as well as among the school, industry, and community.

8. An enterprise requiring new technologies and materials of education (i.e., individualized programming, simulations).

9. A form of education for all students.

Given at least these dimensions as basic explanations of the term career education and the fact that this term has not yet

had sufficient time to pervade the professional literature, the problem which this paper addresses is identification of the historical, philosophical and theoretical belief systems which give the present concept construct validity. The next section will examine pertinent historical antecedents. A genuine understanding of the issues to which change in American education or its supporting social institution is directed presupposes an orientation to the concepts and philosophies which underlie or spur such change.

HISTORICAL AND PHILOSOPHICAL BASES

Before turning to historical inputs to career education as the first section shared with its philosophical bases, it is important to note that the operational use of philosophy as employed here is synonymous with belief systems, assumptive bases and presuppositions which have guided educational thought in the United States. U.S. educators and the American society do not seem much given to philosophy in its metaphysical dimensions or as it can be conceived as the search for universal principles and laws which are available if not yet fully revealed. Certainly, the analysis underlying this paper suggests that the antecedents of career education at least into the 1950's generated much more from pragmatism than idealism, from the realities of day-to-day events than from some overarching and transcending ontology. There were certainly those who were utopian in vision, politically anarchistic, and concerned about the individual plight of the common man. However, much of the force for educational change came as a response to changing social conditions, the needs for manpower to fuel the industrial giant of the United States, the economic exigency of a trained labor force, the stimulation of the labor movement and different professional groups.

Philosophy, as used in this paper, is more directed to social and emotional materials, to situations and persons, than to the intellectual content in isolation. In that sense, as Dewey suggested, philosophy is used here in its instrumental phase as a way of clarifying men's ideas as to "the social and moral strifes of their own day" (Dewey, 1920: 25-26). In this sense, the terms philosophical and conceptual are used as virtual synonyms.

Historical Antecedents to Career Education

The Early Years. Owing at least partially to the complexity and the range of concepts embraced by the term career education, various educational philosophers have heralded the need for such an emphasis in U.S. education for many years. One could start with many persons central to the history of the American Republic and find advocacy of some elements of career education. None would be more famous, or perhaps more pertinent, than Benjamin Franklin. Franklin viewed education as having pragmatic and utilitarian purpose in facilitating the creation and mobility of a middle class in this country. He believed that good morals, temperance, order, industry and frugality, good English, mathematics,

the history of commerce, natural philosophy, and mechanics were the types of subjects that would lead to success in business and the professions. He believed them worthy of being the substance of the "Public Academy" which he proposed in 1759 for the youth of Philadelphia (Curti, 1959: 36f).

While enlightened thinkers have always provided visions of new directions for education, education has always responded to the historical times of which it is a part. Thus, during the 1800's, agricultural education in a formal sense reflected the dominance of the rural character of the nation and foreshadowed the Morrill Act of 1862. This act set aside public lands to support agricultural education, gave impetus to experimental farms, and to professional agricultural education. It also recognized indirectly that the curriculum of country schools offered less quality than urban schools and little of direct relevance to the farmer in carrying on his daily work or in solving the problems with which his occupation confronted him.

But during the late 1800's, the industrial character of the nation was on the rise and spokesmen for various responses to it began to appear. For example, in 1871 Commissioner Eaton advocated introducing commercial subjects into the public schools. More importantly, however, was the fact that the Industrial Revolution, as well as a variety of social and economic problems in nations around the world accelerated the rise of immigration. The immigrants came to North America largely from the lower economic strata of their countries of origin, frequently unschooled and unskilled.

Various persons, including Morrill in 1876, recommended the support of practical, manual, and industrial education in order to distribute these migrants among the occupations and industries which needed their labor. Barnard (1876) sanctioned the indoctrination of youth with capitalist theory. During the 1880's the Knights of Labor and then the American Federation of Labor supported practical studies, such as manual arts, and also industrial education in the school curriculum. These labor groups were more concerned with the abolition of child labor and the establishment of compulsory school attendance than with the focus of the schools' curricula. But as these issues were resolved, labor support became increasingly directed to insuring that appropriate educational importance was given to the dignity and services of labor. Specifically, the American Federation of Labor Committee on Industrial Education (1912) observed:

> the present school systems are wholly inadequate. . . . students are not directed toward the trades in our existing schools, but are actually often directed away from them by the bookish education of those schools and their purely academic traditions (p. 98).

Indeed, Samuel Gompers (National Education Association, 1916) contended that "education should provide so wide an understanding of the relation of one's work to society that no vocation could become a rut and no worker could be shut off from a full and rich life in his work itself."

As the industrialization of North America escalated in the late 1800's and the early decades of the 1900's resurgent criticisms of public education were voiced. David Snedden, for example, criticized the schools for being too "bookish" thus serving only a small portion of students for "academic culture and the professions." Snedden advocated specific educational programs directed to the "actualities" of life. He believed in the need for a pluralistic education in which cultural and vocational education would stand independently but essentially equally; he viewed cultural education as relating to man the consumer and vocational education as concerned with man, the producer (Curti, 1959).

While there were some observers who felt that vocational education was undemocratic in that it perpetuated status quo for the children of the less well-to-do or restricted their social mobility, Charles A. Prosser and Charles R. Allen disagreed. Both were pioneers of the extension of vocational education into the public schools. They were among those who supported the federal allocation of funds to the states to stimulate vocational education which was effected principally by the Smith-Hughes Act of 1917 (Curti, 1959). Prosser, who incidentally was a student of Snedden, believed in the economic advantages of vocational education as well as in practical skills that would permit wage earners to find and hold jobs and if talented, to move ahead.

Dewey took a rather different position toward industrial education than did Prosser, Snedden or Allen. He opposed whatever was narrowly utilitarian in the theory or practice of industrial education. In contrast, he contended that if the child's knowledge began by doing, then industrial education provided the potential for him to satisfy his native tendencies to explore, to manipulate tools and materials, and to construct and create (Dewey, 1931). Here, however, he went beyond Prosser and Allen's concerns about job skills per se and indicated that industrial education also afforded the child knowledge of the industrial world and the fundamental processes of economic life that had previously been conveyed to the child through his experiences in the home and the community (Dewey, 1900). In essence, Dewey believed that industrial education provided workers with the opportunity to learn of the social and cultural background of their vocation as well as the skills involved. He later maintained that one of the possibilities of industrial education was that it provided a correlating medium for other subjects (Dewey, 1931).

Dewey also argued that when providing industrial training, educators had to constantly maintain the primacy of educational values rather than industrial values of such training. He sounded the alarm against taking industrial training out of the public school system and placing it into a separate system of special trade schools which would be dominated by industrial and commercial interests. He was afraid that the latter would simply replicate many of the stultifying and automatic aspects of factory work. His contention was that industrial training, if integrated with cultural education, would produce a type of laborer increasingly capable of assuming greater directive power in his work.

During the same period, the National Education Association's Commission on the Reorganization of Secondary Education (U.S. Bureau of Education, 1918) indicated that the seven main objectives of secondary education in the United States were health, command of fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure and ethical character. This report followed closely the report of the Commission on National Aid to Vocational Education (U.S. House of Representatives, 1914), which spoke not only of "actual training for a vocation" but also schooling designed to extend the general "civic or vocational intelligence" of young workers over age 14 as well as evening schools designed "to extend the vocational knowledge of mature workers over 16 years of age."

Stephens (1970: xiii) has documented the fact that "the vocational education movement was an educational response to the general reform movement spawned by the industrialization of America." He contended further that

> To many leaders of the vocational reform movement . . . it was apparent that vocational education was but the first part of a package of needed educational reforms. They argued that a school curriculum and educational goals that mirrored the occupational structure created merely a platform and impetus for launching youth into the world of work. What was clearly needed to consummate the launch were guidance mechanisms that would insure their safe and efficient arrival on the job. Without guidance experts it was argued, other efforts at reform would be aborted . . . Therefore, in the name of social and economic efficiency, the argument continued, the youth who has been carefully trained would also have to be carefully counseled into a suitable occupational niche (p. xiv).

The period of which Stephens spoke in the above quotation is generally considered the founding period of vocational guidance in the United States. It is the period when Frank Parsons, generally conceded to be the father of the guidance movement, established

the Vocations Bureau in Boston and when his classic book, *Choosing a Vocation* (Parsons, 1909), was published. Trained as a civil engineer, Parsons spent most of his life dealing with reform among the excesses of the free enterprise system as he saw them and the debasement of human nature which he considered a result of the management of industrial organizations. He was at various times involved with activities of settlement houses which had grown up in central Boston, and in other cities along the northeastern seaboard.

Parsons in 1907 and 1908 turned the focus of his attention to industrial education and vocational guidance in response to his feeling that too many persons, especially the immigrants from Europe, were being wasted, both economically and socially, because of the haphazard way they got into the specialized world of the factory. Like so many others of his time, Parsons attacked the public schools for their specialization in book learning and advocated that: "book work should be balanced with industrial education; and working children should spend part time in culture classes and industrial science" (Stephens, 1970: 39). Parsons argued that merely to extend general education by the addition of vocational training and guidance was not enough. In addition, the method of general culture should be materially modified if we are to give our boys and girls an adequate preparation for life and work instead of a preparation for passing an examination to get a degree.

In a telling quote, Parsons advocated the early education of youth by stating "We must train our students to full powers of action . . . in the various lines of useful work so far as possible according to their aptitudes as brought out by scientific tests and varied experiences" (Stephens, 1970: 40).

In *Choosing a Vocation*, Parsons (1909), laid out the procedure which he considered scientific "True Reasoning." He formulated the following steps for "True Reasoning," or vocational guidance:

> First, a clear understanding of yourself, aptitude, abilities, interests, resources, limitations, and other qualities. Second, a knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities and prospects in different lines of work. Third, true reasoning on the relations of these two groups of facts (p. 5).

Parsons' schema defined the parameters of what became known as an actuarial or trait-and-factor approach to counseling for educational and/or vocational choice. Fundamentally, such a position assumed that the individual could be described as possessing certain traits (e.g., aptitudes, skills, interests), that different occupations or educational alternatives could be described as

requiring different patterns of these traits, and that fitting the two comprises the elements of choice. As noted in the last section of this paper on theoretical conceptions, this model really has been time-bound and oriented to occupational choice rather than career choice. Nevertheless, it provided a continuing stimulus to the development of instruments or tests by which the individual's characteristics could be assessed, job analyses, the development of information about educational and occupational options, systems to deliver information within counseling and concern about counseling procedures among other aspects of vocational guidance.

Vocational guidance and vocational or industrial education continued to serve in complementary ways as responses to social and manpower problems throughout the next several decades. World War I created a need for the massive psychological screening and evaluation of recruits relative to appropriate military specialties. This accelerated the use of tests by guidance and psychological experts and ultimately stimulated a conversion of much of this information into the creation of trade tests which attempted to translate military occupational competencies into civilian occupational competencies.

Not only was Parsons' influence strong in getting industrial education and vocational guidance embedded in the public schools but so was the influence of Jane Addams. She had worked with John Dewey as he developed his occupations-based Laboratory School of the University of Chicago, and was quite active in the National Society for Promotion of Industrial Education (NSPIE). Stephens (1970: 37) quoted her as stating that she wanted the specific learning of technical skills to be accompanied by a broader education that "would relate the 14-year-old boy to the industrial community in which he lives . . . "

Another force, which like the NSPIE had begun to speak to the needs for vocational training and vocational guidance, was the National Vocational Guidance Association (NVGA) which was formally conceived at the 1913 annual convention of the NSPIE. During the early years of this organization, the roots of career education were alluded to, if not operationalized. In 1910, at the annual convention in Boston, Stratton Brooks, former superintendent of the public schools of Boston, indicated that as industrial education became implanted in the school, specifically to prepare pupils for particular vocations in life, it would also be required to move forward the time of choice and the necessity to choose a definite career early (Stephens, 1970).

Lovejoy, in a keynote speech at the Grand Rapids Meeting of the NSPIE and NVGA in 1914, contended that the schools had to be reformed to train the child to have a conception of his industrial obligations and opportunities. This would require that the entire

curriculum be shot-through-and-through with the meaning, history, and the possibilities of vocation. At this same convention, the participants were told by George Mead and John Dewey that a democratic education required no "separation of vocational training from academic training and that vocational training and vocational guidance normally linked together" (Stephens, 1970: 86). They each advocated a unified system, rather than a dual system, of education. Additional evidence could be cited to demonstrate the linkage among the vision of the early decades of the nineteenth century, with those prior to World War I, when vocational guidance and education had achieved a cooperative and supportive relationship, and with the current insights represented by the term career education.

Post World War I. Following World War I, vocational guidance and vocational education lost the partnership that had previously been established. Part of this split resulted from the National Education Association's (NEA) unwillingness to see these elements as significant parts of a unity. Finally, the NEA, in 1918, accepted a craft, rather than technical training, emphasis in vocational education and a guidance-for-education rather than for jobs conception of vocational guidance (Stephens, 1970). Obviously, such a split caused continuing identity problems for both vocational education and guidance for years to come.

Regardless of the identity split between vocational education and guidance, events and belief systems continued to surface which supported the need for each in American education. The intense activity in behalf of industrial or vocational education prior to World War I culminated in the Smith-Hughes Act of 1917. During the 1920's Progressive education, whose spokesmen were among the early supporters of industrial education, began to shift focus into what Cremin (1961) has called "the rhetoric of child-centered pedagogy." For many years, "Progressives" concerned themselves principally with applying Freudian concepts to child study and mental health in the schools rather than for skill preparation, beyond that which continued to be stimulated by the definitions of the Smith-Hughes Act.

Recurrent in the late 1930's, and the 1940's particularly, was a concern for the life adjustment of students. Stemming largely from the philosophy of John Dewey, "Life Adjustment" education was seen as a response to the needs for universal education in an industrial democracy in contrast with the need for educating a small elite group, as in most earlier societies (Phenix, 1961). Among the major spokesmen for this position was Stratemeyer (1961: 27) who wrote that life adjustment education has two essential elements:

> First, to help children and youth develop the skills, the knowledge, the attitudes basic to dealing intelligently with immediate situations of everyday living;

and, second at the same time, to help them understand the persistent aspects of those situations which recur throughout our lives.

Such a position was problem-centered and advocated relating facts, concepts, ideas, skills from many sources to the specific problems at issue. Thus, it supported student learning of facts across fields of knowledge related to a problem which needed solution. In this sense, life adjustment education was designed to enhance the child's understanding of how problems were attacked in the realities of daily living and to reinforce the fact that certain types of problems recur throughout life necessitating repeated use of particular types of learning. It had a philosophical intent of minimizing the artificial barriers between school life and the life of the world beyond the school.

In another work Stratemeyer, *et al.* (1957: 30) maintained that two of the most persistent life situations dealt with using leisure time wisely and earning a living. They stated that: "Dealing with these problems provides opportunities for individuals to develop both personal interests and vocational competencies in keeping with their special talents." It is also important to note that the life adjustment position advocated using the resources of the whole school and the community as sources of learning experiences.

Among the persistent life situations which bear directly on current conceptions of career education are such recommended areas as:

Achieving Self-Direction

Adjusting to personal strengths and weaknesses: becoming aware of individual strengths and weaknesses (Early Childhood); finding ways of using or adjusting to individual capacities (Later Childhood); growing in ability to use individual capacities (Youth); making constructive use of individual capacities (Adulthood)

Dealing with success and failure: finding ways of meeting successes and disappointments (EC); learning how to plan next steps after meeting success and failure (LC); extending ability to make constructive plans in situations involving success and failure (Y); making constructive use of success and failure (A)

Making choices and resolving conflict situations: learning what is involved in making simple choices (EC); finding how to identify major issues in a situation and what sources of help to use (LC); developing increased ability to identify issues and use appropriate sources

in making choices (Y); using reasoned decisions to determine action in conflict situation (A) (Stratemeyer, *et al.*, 1957: 184-187).

Using Tools, Machines, and Equipment

Using common tools: finding how to use a few common tools with safety (EC); finding how to use the tools necessary to complete successfully desired repairs and construction (LC); using common tools correctly in a variety of situations (A)

Selecting and using the tools and machines of a trade: finding that different workmen use a variety of tools (EC); finding how a variety of tools helps a workman or professional person on his job (LC); understanding the general nature of the tools and machines used by various occupations (Y); using machines and tools of one's trade efficiently (A) (Stratemeyer, *et al.*, 1957: 288-289).

While the two examples cited are but excerpts indicating that Stratemeyer, *et al.* advocated the identification of a large number of areas found on a reoccurring basis in life, they also indicated that the elements of each life situation had a cumulative affect with implications for early childhood, later childhood, youth and adulthood development and thus for educational experiences. In many ways such a position advocates the rudiments of what more recently has been discussed as a systems approach to career development (Herr and Cramer, 1972).

Before leaving the life adjustment position, it is important to note that this position does not equate adjustment with conformity or mediocrity. The term was used in the psychological, not the sociological sense. It conveyed an ability to meet and deal effectively with the situations pertinent to everyday living; to developmentally grow in ability to cope with experience (Stratemeyer, *et al.*, 1957: 31).

Another significant influence on both vocational education and guidance was the economic depression of the 1930's. One of the federal programs instituted during that period was the Civilian Conservation Corps (CCC). An early goal was to have classes in general and vocational educational courses conducted when practicable as part of the program for all enrollees who desired them. Cremin (1961) reported that almost two-thirds of the enrollees in the CCC took part in some sort of job training.

The Work Progress Administration (WPA), also active during this period, spawned the National Youth Administration (NYA) which helped many youth finish their education while earning a salary

through part-time employment. The NYA was significant because it stimulated a great deal of interagency cooperation dealing with job training, youth employment and particularly vocational guidance. Miller (1961: 60) reported that the NYA set vocational guidance goals to increase the employment of youth in out-of-school projects which included:

1. To help the youth evaluate himself.
2. To help him make a vocational choice.
3. To help him plan his training program to achieve this choice.
4. To place him in the work.
5. To follow up on the work assignment to insure good results for him.

This period was also marked by the U.S. Department of Labor's development of the *Dictionary of Occupational Titles* and the *Occupational Outlook Service* which provided a repository of information about the U.S. occupational structure unavailable for vocational guidance purposes prior to that time. In addition, agencies like the Minnesota Stabilization Research Institute were established, having among other purposes, to undertake studies of vocational choice and adjustment as well as to demonstrate methods of educational industrial rehabilitation of workers dislodged by industrial changes. Among the continuing outcomes of this activity was the development of new tests of vocational capabilities (Crites, 1969).

World War II and Beyond. With World War II came the need to identify and train millions of young men and women. The application of psychometrics to the selection and classification of personnel and the expertise of vocational educators was used in the development of training programs for an increasingly technical military establishment.

Following World War II, the spotlight was again turned on the purposes being served by the public schools. In 1946, under the aegis of the U.S. Office of Education, a series of regional conferences brought together general and vocational educators from various levels to consider the subject "Vocational Education in the Years Ahead." The consensus of these meetings was:

1. Secondary education was "failing to provide adequately and properly for the life adjustment of perhaps a major fraction of the persons of secondary school age."

2. Functional experiences in the areas of practical arts, home and family life, health and physical fitness, and civic competence "are fundamental to any educational program designed to meet the needs of youth.

3. A supervised program of work experience is essential for most high school youngsters.

4. Those entrusted with the education of teachers need "a broadened viewpoint and a genuine desire to serve all youth" (Cremin, 1961: 335).

To some degree the first and second points were responded to by the George-Barden Act of 1946 (U.S. Congress, 1946), which will be discussed in the section on legislation. The other items did not receive a response. During the following decade the Korean War occurred and there were continued attempts to stabilize the economy after World War II. Suddenly, Russia launched Sputnik and the U.S. educational structure was once again brought under intense scrutiny with polemicists charging a lack of attention to or educational rigor for the gifted or scientifically talented. In 1958, the National Defense Education Act appropriated funds which could be used to train secondary school counselors and to reimburse the local development of secondary school guidance programs the testing of students to identify those with outstanding academic promise.

While the rush to higher education, particularly in the sciences, was clearly on, vocational education and guidance still had their advocates. Conant (1959) advocated the importance of male and female high school students having an ultimate vocational goal and that vocational education should be a part of comprehensive high schools rather than housed in separate buildings. He advocated the implementation of counseling in the elementary school (a concept to which the federal government gave credence in the 1964 amendments to the National Defense Education Act) and a full-time counselor for every 250-300 high school students, a figure approximately 50 percent below the current situation 13 years after the recommendation.

In addition, Conant recommended abolishing student classification by labels such as college preparatory, vocational, or commercial. Rather, he recommended that counselors develop individualized programs for every student emphasizing sequences of courses leading to higher education or marketable skills upon graduation. Further, Conant recommended a wide range of vocational and technical courses which would be introduced or eliminated as employment conditions changed.

1960 to the Present. While each of the ideas, persons, and events inventoried so far suggest something of the substance or of the climate for career education, the beginning of the 1960's actually ushered in significant changes in vocational education, guidance, and American education more broadly conceived. An important factor was the emergence of unemployment as a key public issue for the first time since the 1930's. Unemployment in the third post-Korean war recession exceeded 8.1 percent (unadjusted for seasonality in February, 1961) causing segments of the labor force to clamor for action. The focus of intensive debate at the time was whether the cause of unemployment was slow economic growth and a deficient rate of job creation or inadequate skills in an economy of abundant but high level employment opportunities (The Advisory Council on Vocational Education, 1968).

As American technology was accelerating, salable skills in such a context emphasized a growing need for skills composed of both intellectual and manipulative components. Indeed, the skills which the occupational structure demanded were not those which could be "picked up" on the job but were increasingly those developed through formal education. Education and training were increasingly being recognized as elements directly tied to the process of economic growth. Yet less than one-half of the non-college trained labor force had any formal training for their jobs.

When President Kennedy took office in January, 1961, he was convinced that the high level of unemployment was one of the most serious domestic problems facing the nation. He directed the Secretary of Health, Education and Welfare to appoint a panel of consultants on vocational education (The Advisory Council on Vocational Education, 1968). The panel of consultants was concerned about two broad factors when they reported in 1962: 1) vocational education's lack of sensitivity to changes in the labor market, and 2) its lack of sensitivity to the needs of various segments of the population (U.S. Department of Health, Education and Welfare, 1963: 206-214). Most of their specific recommendations for change in vocational education were incorporated into the Vocational Education Act of 1963 (U.S. Congress, 1963) which will be discussed in the latter section on legislation.

The Vocational Education Act of 1963 did not really become operative until 1965. In 1967, a second panel of consultants was created to examine the impact of the Act. Their report (The Advisory Council on Vocational Education, 1968) indicated that the operational life of the 1963 Act had been only two years and thus one had to consider what had transpired as a result of the Act in that light. Among other things, the second panel of consultants observed that "vocational education still appears to suffer most in quantity and quality for those who need it most." They noted inadequacies in vocational education in both inner city and suburban schools, considered vocational education inadequate for

women and for out-of-school youth, and noted that there were too few meaningful occupationally oriented public school courses and programs available for any adult.

The panel felt that those least well served by our society, and by the education and training system, were individuals who were out of school and persons under age 20. They noted specifically that,

> graduates of the general high school curriculum, graduates of the college preparatory curriculum who did not attend college, and graduates of the many vocational curriculums which have lost touch with the world of employment have nearly as many problems as the people labeled 'dropouts.'

Their report further indicated that special attention to those with academic, socioeconomic, and other handicaps was one of the new directions established by the 1963 Act but was not among its most impressive accomplishments. The report went on to indicate that counseling and guidance needed to place greater emphasis on the world of work and its requirements. It was also strongly proposed that the school program needed to be modified to include as a part of the course work of all students, instruction designed to acquaint them with today's world of work. Finally, it was argued that it was no longer possible to compartmentalize education into general, academic, and vocational components.

The Report of the 1967 Advisory Council included a series of recommendations directed toward creating what was described as "a unified system of vocational education." The substance of these recommendations is reflected in both the Vocational Education Act Amendments of 1968 (U.S. Congress, 1969) and in much of the current discussion of the substance of career education. A slightly abridged form follows:

1. Occupational preparation should begin in the elementary schools with a realistic picture of the world of work. . . .

2. In junior high school economic orientation and occupational preparation should reach a more sophisticated stage with study by all students of the economic and industrial system by which goods and services are produced and distributed. . . .

3. Occupational preparation should become more specific in the high school, though preparation should not be limited to a specific occupation. . . .

4. Occupational education should be based on a spiral curriculum which treats concepts at higher and higher levels of complexity as the student moves through the program.

5. Some formal post-secondary occupational preparation for all should be a goal for the near future.

6. Beyond initial preparation for employment, many, out of choice or necessity, will want to bolster an upward occupational climb with part-time and sometimes full-time courses and programs as adults. . . .

7. Any occupation which contributes to the good of society is a fit subject for vocational education. In the allocation of scarce resources, first attention must be paid to those occupations which offer expanding opportunities for employment. . . .

8. Occupational preparation need not and should not be limited to the classroom, to the school shop, or to the laboratory. Many arguments favor training on the job. . . .

9. Effective occupational preparation is impossible if the school feels that its obligation ends when the student graduates. . . .

10. No matter how good the system of initial preparation and the opportunities for upgrading on the job, there will always be need for remedial programs. . . .

11. At every level from the elementary school through the post-secondary, adult and remedial programs there will be those with special needs as defined by the 1963 Act. For both humanitarian and economic reasons, persons with special needs deserve special help.

12. Many communities are too small to muster sufficient students for a range of occupational offerings broad enough to provide realistic freedom of occupational choice. . . . residential schools may be appropriate in these situations. . . .

13. The public system for occupational preparation must be supported by adequate facilities and equipment, buttressed by research and innovation, and by the preparation and upgrading of competent teachers, counselors, and administrators.

14. The system of occupational preparation cannot operate in a vacuum. Data must be made available on public and private training opportunities to eliminate undesirable duplication (The Advisory Council on Vocational Education, 1968: 50f).

One of the portions of the Vocational Education Act Amendments of 1968 (U.S. Congress, 1969) which provided risk capital to finance innovative practices by which many of the above recommendations could be implemented was Part D, Exemplary Programs and Projects Section. In March, 1969, a national conference was convened in Atlanta, Georgia which focused upon this section of the Act. Invited papers were prepared by persons representing vocational education, research, school administration, and vocational guidance.

Herr (1969), in his paper entitled, "Unifying an Entire System of Education Around a Career Development Theme," advocated the use of a concept of developmental tasks and current knowledge about career development to provide the organizing structure for a systems approach to education from kindergarten into higher education. He indicated that in addition to the development of marketable skills for all students, U.S. education needed to develop directly and systematically the student attitudes and knowledge about themselves, their occupational and educational alternatives and the decision-making abilities which are central to vocational identity and choice.

Gysber's (1969) paper, "Elements of a Model for Promoting Career Development in Elementary and Junior High School" complemented Herr's work in recommending that efforts to facilitate student career development needed to be attuned to the characteristics of students at different educational levels. Burchill's (1969) paper, "Work-Experience Educational Programs for Secondary Youth" inventoried selected examples of school programs which had developed excellence in cooperative education on the use of community resources. These papers and the others given at the conference were summarized in the conferences report, *A Guide for the Development, Implementation, and Administration of Exemplary Programs and Projects in Vocational Education* (Bottoms and Matheny, 1969). The Exemplary Programs and Services Branch, USOE, recommended these papers as useful background references on the design of Vocational Exemplary Projects. In the terms identified in the following paragraph these papers served to elaborate a position on the career development component of career education.

Indeed, the Exemplary Programs and Services Branch, Division of Vocational and Technical Education (U.S. Office of Education, 1971a), has indicated that Part D, Section 142(c) of the Vocational Education Amendments of 1968 actually represents "early attempts to structure operating models of what is now coming to

be referred to as a K through 12 'career education system.'" The roots for such a system go back into many years of basic research on career development theory.

Since 1968, the USOE views on vocational preparation have been broadened to include a growing emphasis on development of the individual's ability to come to terms with his preferences for choice, the attitudes which facilitate choice, and the acquisition of a personal information processing strategy. In his work designed to expand the presence of behavioral sciences in the curriculum, Roen (1967a) has indicated that only through "education for choosing" will individuals become more competent choosers. Further, he has suggested that the need for systematic education in choice-making begins in the primary grades.

> Elementary grade children are still fairly close to the developmental decisions which will mold their personality; they are, for the most part, still free of inhibited thought and behavior. Teaching them in logical sequence the substance of accumulated knowledge about the behavioral influence of inheritance, environment, social systems, intelligence, learning, emotions, the order of birth, mental illness, the concept of self . . . allowing them to experience and/or discover the techniques of inquiry into these matters, ought to be beneficial--if not pivotal in a personal sense--in their encounter with the world of human problems. (Roen, 1967b)

It is important to acknowledge that the broadening of perspectives on vocational education was not confined to the influences of career development. During this period, Maley (1967) outlined the characteristics of the cluster concept to occupational education. He defined the cluster concept as "a descriptive term applied to a form of vocational education directed toward the preparation of individuals for entrance into a spectrum of occupations. The occupations selected for a 'spectrum' or 'cluster' are those found to require the same proficiencies in a number of areas, namely, measurement, communications, mathematics, science, skill and general information." Maley further contended that,

> The cluster concept affords a greater degree of occupational exploration on the part of the student. It provides him with an opportunity to gain sufficient skill and understanding for job entry as well as the background to enable him to effectively appraise his interests and potentialities in the several specific occupations in the cluster. Since the student is not channeled into a single occupation, it provides him with a broader area of self-exploration in a series of related occupations.

Because of the flexibility of such a curriculum, the career development emphases, and the possibilities for preparing a student with job entry skills, Maley indicated that such a curricula design would open vocational education to students in the general curriculum, a group about whom, as indicated in the introductory sections of this paper, Commissioner Marland has expressed personal concern. In essence, the cluster concept provided an alternative to a strictly defined occupational approach to vocational education.

More specific conceptualizations of career development will be addressed later in the paper. The next section will describe selected characteristics of the social structure of the United States which appear to support the current efforts to prepare individuals for effective choice-making and for flexibility in coping with social changes.

Summary

In summarizing this overview of the historical, philosophical and conceptual antecedents to career education, several points are particularly visible:

1. Virtually every concept which is presently embodied in career education has been advocated at some point in American education. This is not to suggest that such concepts have either been operationalized or tested in practice. Nevertheless, philosophical support for the major elements of career education has historical construct, if not evaluative, validity.

2. Most of the elements of career education have their roots in the early efforts to embody industrial education and, somewhat later, vocational guidance in the public schools. Both vocational education and vocational guidance were direct responses to the needs for the distribution, classification, and preparation of manpower occasioned by the rising industrial character of the U.S. in the late 1880's and 90's as well as the first two decades of the twentieth century.

3. Advocacy of vocational education and vocational guidance has largely been precipitated by economic and industrial needs rather than personal or individual needs, although there have been social reform and social welfare threads running through advocacy of these services. It is apparent that at the present time, as was true in the last

decade, this situation has largely reversed with individual needs being considered the major base from which educational programming must begin.

4. Until approximately 1960, concern for the vocational needs of individuals was reflected principally in providing different categories of vocational training. To a high degree, the categories of vocational training were defined by occupational or industrial needs or, in some cases, inertia. Thus, persons needed to be fitted to programs rather than programs fitted to persons. Since 1960, however, increased attention has been focused on the needs of special groups of persons--i.e., the disadvantaged, the handicapped, the academically retarded--as well as the affective dimensions of employability as reflected in terms such as vocational identity, vocational maturity, and vocational decision-making.

5. Although there were antecedents in life adjustment and progressive education positions prior to 1960, since then increased emphasis has been focused on the prevocational elements of decision-making and preparation to be found in the elementary, middle or junior high school educational levels. Equally important has been concern for the vocational implications held by post-secondary education, including collegiate education, for adults and out-of-school youth. Together these elements have constituted support for articulating, from the kindergarten through post-secondary education, a series of increasingly complex educational experiences which would be available to all students, to out-of-school youth and to adults. Further these experiences are seen as requiring not only vocational preparation in a continuum from job entry to highly complex technical skills but also vocational guidance in a continuum oriented to prevocational and educational awareness, attitudinal development, awareness of personal strengths and potentialities as well as the development of decision-making abilities.

CURRENT SOCIAL OBSERVERS

Since career education is a present synthesis of ideas which have long historical lineages as well as a concept which has implications for future educational emphases, it is important to examine selected perspectives held by those trying to assess what continuing social and vocational changes will require in individual coping abilities. Since the early 1950's, a number of books have become available whose focus has been on the implications for the individual of a growing technological cast in American society. They have identified and discussed the fact that in order to serve the complexity, the interdependent nature and the bigness of industrialism and the new technologies which have evolved in the United States, a proliferation of large corporate structures has resulted. Indeed, they indicate that these big corporate structures have become characteristic of all institutions in this society--economic, social, political, education, religious--and have stimulated a continuing tendency toward urbanization. Their observations might be thought of as distributed along a continuum of reaction from pessimism to optimism about the psychological price which these phenomena will cost individuals attempting to deal with them.

Among the classic works concerned about individual interaction with society was Whyte's *Organization Man* (1956). The book was essentially targeted on the effects of corporate organizational expectations upon middle management and men who were upward strivers for status and power. Much of the book's content was concerned with the potential destruction of individuality and the concurrent acceptance of conformity which modifies individual behavior in ways defined by the organization.

A contemporary work to Whyte's dealing with complementary sociological perspectives on the same themes, was Riesman's *The Lonely Crowd* (1950). This book focused upon the transition of societies from "tradition directed" to "inner-directed" to "other-directed" with each phase imposing a behavioral sanction--respectively shame, guilt, and diffuse anxiety--shaping or restricting individual behavior to social norms compatible with the emphasis of each phase. Riesman contended that in contemporary American society persons were becoming normless, without deeply held personal convictions about behavior or values as these reflected self-affirmation. Without such personal reference points, Riesman viewed people as constantly erecting figurative radar antennas by which to constantly tune in on others about what behavior is appropriate in one circumstance and then another.

During this period many observers had begun to identify the vast number of roles in which the public and private worlds of each person required participation. Riesman contended that if persons involved with constant role switching do so by attempting to constantly meet the expectations of others, there is the danger that individuals will lose touch with their personal convictions, preferences and values, and will become insatiable in their desire for the approval of others. Immersed in such "other direction" one may fail to develop the inner resources which shape aspirations and feelings leading to a commitment or mission for one's life.

Lack of freedom and power to impose oneself upon the environment in positive and purposeful ways has been labeled psychic isolation by Kimball and McClellan (1962). These authors described the American society in 1962 as a richly textured one offering a greater variety of interests and opportunities to a greater proportion of people than any society the world had known before. But unlike the agrarian society of the nineteenth and early twentieth centuries which provided absolute standards of behavior, embedded in history and religion, contemporary society "offers no fixed and eternal ends in life, but only powerful dynamic means, as its major gifts to the individuals that make it up."

Kimball and McClellan described the need for the individual to come to terms with the vast differences in the expectations of the private and public worlds, the world of family and friends on the one hand and the world of complex superstructures--segmented, specialized, impersonal--on the other. These authors argued that if individuals were to avoid being overwhelmed by the manifold nature of opportunity and personal responsibility for sorting it out and committing oneself to it, they must be educated to understand it and the ways by which its personal implications can be assessed and used.

Reich's best-selling book, *The Greening of America* (1970), analyzed the American society with particular emphasis upon its failings as viewed by the youth culture. He proposed an analysis of American society's social evolution in ways somewhat similar to the earlier propositions of Riesman (1950). Reich contended that individual behavior is affected by what he describes as "Consciousness." "Consciousness," as he defined it, is "any given individual's perception of reality, his whole world view. . . . It is that by which he creates his own life and thus creates the society in which he lives" (Reich, 1970: 13, 15). The three phases of Consciousness which he described are formed by the economic and social conditions affecting individual behavior at a historical point in time. Reich argues that Consciousness III, the life view of the current generation of youth, is a reaction to the machine-rationality of the corporate state and to the

depersonalization, meaninglessness and powerlessness of which it stands accused. Consciousness III emphasizes man's subjective nature, his needs for community rather than competition, and coexistence rather than exploitation of nature. Reich described how work would be viewed by the new generation as follows:

> The new way of life proposes a concept of work in which quality, dedication and excellence are preserved, but work in nonalienated, is the free choice of each person, is integrated into a full and satisfying life, and expresses and affirms each individual being (p. 19).

Drucker (1971), whose work is perhaps the most directly relevant of the persons cited in this section to the current propositions of career education, argued that Reich's observations about Consciousness III being the wave of the future are wrong in the sense that they are "a description of what happened in the recent past, rather than a forecast of what will happen in the future." Drucker's assertions were based upon the economic realities of the 1970's which he believed face youth. He held that changes in population characteristics, technologies, the cost-squeeze relative to available financial resources, and patterns of occupations would combine to reemphasize the importance of preparation for a productive life and educating oneself about choices available.

In an earlier work, Drucker (1969) maintained that the current occupational structure was undergoing a shift to what he described as a knowledge economy requiring knowledge workers. He contended that the emerging industries--information, development of the oceans, materials sciences, solving the problems of megalopolises--would require knowledge applied through systems approaches. He stated: "The systematic acquisition of knowledge, that is, organized formal education, has replaced experience--acquired traditionally through apprenticeship--as the foundation for productive capacity and performance" (p. 40). In addition, he contended that "the productivity of the worker will depend on his ability to put to work, concepts, ideas, theories--that is, things learned in school--rather than skills acquired through experience" (p. 41).

Drucker speaking directly to the matter of education maintained that:

> We learned in World War II, with respect to the manual crafts, that we could compress years of apprenticeship into weeks, or at most months, of organized and systematic learning . . . average people, became highly skilled craftsmen in little time and enjoyed the learning experience. . . . With this experience the shift

> to knowledge work and knowledge industry actually began . . . a knowledge foundation enables people to unlearn. It enables them in other words to become 'technologists' who can put knowledge, skills, and tools to work, rather than 'craftsmen' who know how to do one specific task one specific way. . . . This ability to gain advanced skills through programmed acquisition of knowledge makes traditional craft structures untenable. . . . We need a massive effort to find, identify, develop, and place the largest possible number of Negro knowledge workers as early as possible. This means going into elementary school. It means working with boys and girls at a very early age, helping them to plan careers, encouraging them to stay in school and to learn, showing them opportunities, examples and models. . . . We will have to replace 'vocational training' by the education of technologists. . . . people capable of using theory as the bases of skill for practical application in work (Drucker, 1969: 268, 303, 309, 318).

In an analysis of the actions and the verbalizations of the new generation, Drucker insisted that attacks upon depersonalization, manipulation, corporate society and the "Establishment" really obscure their concern with what he visualized as the "burden of decision" with which society's present characteristics confront them. He added that "The society of organizations forces the individual to ask of himself: 'Who am I? What do I want to be? What do I want to put into life and what do I want to get out of it?'" Thus, as modern organizational society creates manifold opportunity for choice and decision, it also imposes upon the individual a level of responsibility for what he is and what he becomes unprecedented in human society.

Toffler's (1970) thesis that accelerated change brings with it adaptational problems for man, which he described as "future shock," also has relevance to career education. He cautioned that implicit in "future shock" is a phenomenon called "overchoice." He described the matter as follows:

> Ironically, the people of the future may suffer not from an absence of choice, but from a paralyzing surfeit of it. They may turn out to be victims of that peculiarly super-industrial dilemma: overchoice (p.264).

Toffler indicated that potential overchoice is related to some other behavioral implications. He argued that available evidence suggests that confusion in orientation and erratic decision-processing also occur in the presence of an imbalance in environmental

overstimulation and information overload. Together these factors may contribute to "decision stress" (Toffler, 1970: 355). Basically, it was suggested that the more choices available, the more novel each is; and the more frequently choices are imposed upon the individual, the more information the individual requires; the more rigid he may become about the veracity of decisions already made, the more he may attempt to escape psychologically by different forms of evasion and the manifestation of defensive behavior, or physically in any available forms of withdrawal.

Summary

The above observations while selective tend to support the kinds of shifts in emphasis reported in the previous section. They indicate that while there was validity to an emphasis on preparing persons on the basis of industrial or occupational demand, such an emphasis needs to accommodate the manifold opportunity for expressing choice and individual preference in the present occupational/educational structure as well as in that of the future. Such emphasis also supports the need to address systematically the acquisition by students and adults of those information-processing and choice behaviors which would reinforce personal power to affect one's life.

The observations cited reflect what has and what can happen in a society where technology, corporate structure, and their personal implications occur without the awareness of persons affected. None of these observations necessarily indicate that the current society represents a plague upon the individual but rather that education must acknowledge directly and programmatically ways of helping persons locate themselves and find their occupational, educational, and personal mobility in a constructive and informed fashion in addition to being prepared to be productive.

LEGISLATIVE INPUTS

Legislation is both shaped by and shapes the historical period in which it is conceived. Quite aside from any political implications, legislation does reflect a philosophical expression, a belief system about what is of sufficient importance to be funded in some priority way. Obviously, the legislation affecting vocational education and guidance has paralleled the historical and contemporary emphases cited in the foregoing sections of this paper. Thus as the country has changed from rural to urban/technological dominance, such shifts have been reflected in legislation which either anticipated or responded to the shifts.

It has been stated that, "the most important change between 1917 and 1963 was the conceptual shift of emphasis from the needs of employers for skilled labor (The Smith-Hughes Act) to skills needed by people to assure their own welfare (The Vocational Education Act of 1963)" (U.S. Health, Education and Welfare, 1970). Or, stated another way,

> In 1963 Congress gave fundamental and philosophical attention to vocational education for the first time since 1917. The immediate motivation was high unemployment among untrained and inexperienced youth. However, a long run impetus was provided by the growing importance of formal preparation for employment in an increasing technical and sophisticated economy (U.S. Senate Committee on Labor and Public Welfare, 1968).

The Morrill Act of 1862 had laid the foundation for federal support of vocational education as it was then defined by an emphasis in the professionalization of agricultural subjects. Such an emphasis remained reasonably constant until the Smith-Hughes Act, (U.S. Congress, 1916), which broadened the emphasis of vocational education to include not only agricultural studies, but also those important to trades, industries, and home economics. Thus legislation also required studies, investigations and reports about the characteristics of the activities and consumers of these training programs. This act and its 50/50 matching provisions defined the character of vocational education legislation until 1946 when the George-Barden Act (U.S. Congress, 1946) was passed.

The George-Barden Act of 1946 added federal support of distributive education and preparation for the fishery trades. It

also included other provisions pertaining to the funding support of vocational guidance, securing data for program development, training and work experience, and apprentice programs. Effective FY 1957, the Act was amended by Title II which added funding support for practical nurses training. The Act was again amended by Title III, effective FY 1959, which introduced funding of area vocational education programs and defined "State" to include the Virgin Islands, Puerto Rico, Guam, and the District of Columbia.

By this time, vocational education had fallen into its standard categories: agriculture, trades and industrial occupations, distributive education, health occupations, home economics, office education, and technical education. The logic of the legislative Acts was found in the specialization of labor as it became inherent in industrialization. Growing industrial development seemed to demand formal provision and enhancement of at least a few specialized skills. The only federal recognition of training for women during this period was the Title II Amendment to the George-Barden Act which was passed in 1956 and included provision of practical nurse education.

During the early 1960's numerous manpower and anti-poverty programs were developed: the Manpower Development and Training Act (MDTA), the community work and training program, the Job Corps, the Neighborhood Youth Corps (NYC), the work experience and training program and others. While these programs offered compensatory education and training they suffered a lack of coordination and did not respond to the students leaving public schools and colleges without explicit marketable skills (The Advisory Council on Vocational Education, 1968). By this time, the concepts of career development had taken hold and individual needs for a revitalization of vocational education in a period of massive unemployment had become insistent. Thus, the Vocational Education Act of 1963 (U.S. Congress, 1963) came into being.

The Vocational Education Act of 1963 continued the support of agricultural subjects, home economics, distributive occupations, trade and industrial occupations, business and office occupations as well as practical nurses training but, perhaps more importantly, gave significant impetus to work-study programs, residential schools, area vocational educational programs and general education as it could be tied vaguely to specific needs in vocational education. These latter provisions laid a direct base for what has come to be known as the cluster concept and a tentative step toward breaking the separation of so-called academic and vocational education. This legislation also provided for the establishment of an advisory committee on Vocational Education.

The conceptual implications of the Vocational Education Act of 1963 were found in the declaration that the purpose of the

federal grants to the states was to develop an adequate vocational education system

> so that persons of all ages in all communities of the State--will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interest and ability to benefit from such training. (U.S. Congress, 1963)

Vocational education was to be regarded as a unified program instead of a number of separate programs identified by the thrust of the employability skills which they separately provided. The new definition of vocational education in the Act specifically incorporated basic and general education as a requisite for useful vocational education by including "instruction related to the occupation for which the student is being trained or necessary for him to benefit from such training."

The 1963 Act explicitly identified four groups for whom federal funds could be expanded. They included 1) persons who attended secondary schools; 2) persons who want to extend their vocational education beyond the high school level and such persons who have left high school before completion but are available for full-time vocational education before entering the labor market; 3) persons already in the labor market and needing further training to hold their jobs, to advance in their jobs, or to find suitable and meaningful employment; and 4) for the first time, persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program. In addition, federal funds were set aside for research in vocational education and monies were earmarked also for experimental, developmental and pilot programs. A further significant factor was the Act's expectation that resources of vocational educators and the state employment services were to be combined in determining labor market needs and placing vocational graduates.

As indicated in the section on historical antecedents, the Vocational Education Act of 1963 did not become operational until 1965; it was evaluated two years later by the Advisory Council on Vocational Education, and significant recommendations for amendment were made. These recommendations were incorporated in substance into the Vocational Education Amendments of 1968 (U.S. Congress, 1968).

Fundamentally, the 1968 amendments to the Vocational Education Act significantly expanded those portions of the 1963 Act which charted new directions for vocational education and began the process of converting rather vague conceptions into operational programs. Without being so identified the 1968 Amendments provided many of the major dimensions for career education.

Among its many pioneering sections, the 1968 Act established national and state advisory councils for vocational education, reasserted the importance of expanded efforts in research and training with emphasis on the development of new career programs, residential schools, rehabilitation of special needs groups particularly the disadvantaged and the physically handicapped, cooperative programs and work-study programs. Of particular importance was the focus on curriculum development and on exemplary programs. In part these latter represented the elimination in both the 1963 Vocational Education Act and 1968 Amendments of funds earmarked for the traditional lines of identification of vocational education areas: agriculture, trade and industrial education, distributive, office occupations, the health areas. It was advocated that new ways of conceptualizing vocational education need to be found. They also reflected, however, an expanded concept of guidance and counseling to include services which facilitate job choices (career development as we will discuss it later) and job placement. The latter conceptions reemphasized the needs for prevocational activity extending into the elementary school.

In some ways, the 1968 Amendments represented a laying down of the gauntlet to vocational educators. During the early 1960's a sudden burst of manpower programs housed in different agencies was generated to serve remedial manpower needs. These programs lacked coordination and their objectives and clientele tended to be confused. Nevertheless, they represented an erosion of the responsibility of the U.S. Office of Education and vocational educators, to take the principal role in manpower preparation. The 1968 Amendments raised such a concern again. Grote (1969), as President of the American Vocational Association during the period when the 1968 Amendments were passed, wrote:

> Unless we in vocational education can demonstrate unequivocally that we have the ability to develop a delivery system and the resources to make it effective in meeting the needs of all people, unless we are flexible enough to adjust to changing job requirements--and unless we wake up to the fact that we can ill afford to alienate ourselves from other phases of education and/or levels of instruction--then we face the possibility of another state and/or federal agency assuming the leadership in manpower training and development.

Vocational educators quickly responded to the challenge of the 1968 Amendments by developing reassessments of the boundaries by which vocational education should be described and in formulating new conceptual frameworks for vocational curriculum. Rather than responding to the needs of the market place as the major determinant of designs for vocational education, the individual needs and

motives of the learner were given new importance. Such a concern led three distinguished vocational educators, writing the lead article in an American Vocational Journal issue devoted to curriculum for new and changing occupations, to contend:

> The unique and dual purpose of the vocational curriculum is to produce satisfied and satisfactory workers, a condition which improves job productivity and occupational tenure. . . . Accordingly, curriculum planning should provide for adequate guidance of the learner's vocational development. The resulting curriculum should allow students to learn how to make intelligent vocational choices based on realistic occupational images and self-understanding. . . . Further, a good occupational experience program goes beyond the development of technical skills and knowledge. It includes the learning of competencies dealing with occupational adjustment--the matter of distinguishing what factors in a work environment the worker can not control and those he can manipulate for his purposes. It also includes a large measure of investigative learning dealing with the nature and suitability of jobs and occupations as they relate to the learner's attributes, interests, strengths and weaknesses (Swanson, Nelson and Meyer, 1969).

This reaffirmation of the reciprocal needs of vocational education and guidance, one for the other, a relationship which as indicated earlier had disintegrated in the years following World War II, was also proposed by Law (1969). He identified three propositions:

1. Career guidance and orientation is needed by everyone.

2. Vocational guidance needs a regular place in the school curriculum.

3. There can be no satisfactory program of career guidance without vocational education.

He contended further:

> If the vocational guidance program were longitudinal, a continuing process, as it has been described in career development theory, there would be an ample opportunity for an individualized program. From a common core of group activity, individual students would move toward the development of occupational knowledge, concept of self, and vocational competence

in any variety of ways, largely determined by each person's qualities and drives (Law, 1969).

While many other examples of philosophical or theoretical activity spawned by the 1968 Amendments could be cited, the basic point is that the direction of both vocational education and guidance were brought under scrutiny and found lacking in their responses to the realities of changing occupational and social conditions as well as the needs of individuals.

Hoyt (1969), a distinguished spokesman for the guidance movement, has contended that the Vocational Education Amendments of 1968 contain "both hope and headaches for the guidance movement." However, his analysis of the goals for guidance and counseling (the philosophy as expressed in the Amendments) indicates the following in outline fashion:

Within the Regular Ongoing Program

1. To provide opportunities for choosing vocational education to secondary school students, out-of-school youth, and adults.

2. To provide vocational guidance and counseling services to students in vocational education programs.

3. To develop and maintain cooperative relationships with employment service counselors.

4. To develop effective working relationships with a wide variety of professional personnel concerned with manpower problems.

Goals in Exemplary Programs

5. To define, develop, operate, and test the effectiveness of vocational aspects of guidance in the elementary school.

6. To define, develop, operate, and test the effectiveness of vocational aspects of guidance related to the transition from school to work.

Other Goals

7. To include a clear emphasis on vocational aspects of guidance in regular counselor education programs and to provide inservice education to counselors who need such an emphasis.

8. To vigorously attack our current areas of ignorance by sound research studies concerning the differential efficacy of various counseling approaches with various populations, the need for drastic change in the nature and dissemination of occupational and educational information, improving the process of transition from school to work, and the evaluation guidance.

In meeting the philosophy for guidance expressed in the Act by the above goals, he stressed the need to insure that other basic philosophical goals of guidance not be violated. In particular he cited the following:

1. We must retain the concept of unity of guidance as a program of services for all.

2. We must retain a reasoned and reasonable balance between cognitive and affective emphases in guidance and counseling.

3. We must uphold and promulgate the basic value anchors on which the personnel and guidance field is based:

    a. Worth of the individual
    b. Freedom of choice for each individual
    c. Expansion of both the basis for decision-making and the variety of choices made available to the individual
    d. The value of personalized and individualized assistance in the decision-making process (Hoyt, 1969).

Summary

In viewing the legislative heritage to which career education falls heir, it is clear that philosophical shifts have transpired. The early belief systems which supported vocational education legislation up to the sixties accentuated the view of vocational education as separate from the rest of education or, indeed, other manpower development programs. It addressed vocational education funding and program development in terms of the categories and needs defined by the occupational structure. It concentrated its focus on the secondary school level. It gave little direct attention to individual decision-making or to the importance of vocational guidance in facilitating such personal behavior.

The legislation of the 1960's has virtually rejected all of the assumptions which previous vocational education legislation

had been based upon. The Act of 1963 and the Amendments of 1968 spoke of employability as having a longitudinal character as well as both affective and cognitive dimensions. They emphasized the need to both reestablish linkages between vocational education and general education and to heighten the clarity of purpose in each for contributing to skill development necessary to employability. They emphasized the need for new directions in both vocational education and in guidance as these areas needed to complement each other in contributing to personal growth. They emphasized that vocational education and guidance had contributions to make to all not just narrowly defined segments of the population. They emphasized the need for vocational education to use community resources as a purposeful part of its program rather than to confine itself to the classrooms and laboratories found only in school systems. Perhaps most importantly they asserted that the needs of the individuals, and particularly those with special needs, should receive primary attention in planning educational programs.

Current descriptions of career education clearly subsume and extend the philosophical base laid by the Vocational Education Act of 1963 and the Amendments of 1968. Such an affirmation can test its validity by examining the objectives upon which projects mounted under such aegis are focused.

CURRENT PROGRAM ASSUMPTIONS AND OBJECTIVES

The assumptions or objectives upon which programs are based also represent philosophical expressions. The following selected examples since 1963 pilot many of the ideas which represent transition from the Vocational Education Act of 1963 and the Vocational Education Amendments of 1968 to career education today.

Comprehensive Programs

In conceiving a comprehensive program of occupational exploration and vocational education for the City of Denver, the following assumptions and objectives guided the planning (Tomplinson, 1968):

1. A complete program must provide opportunities for the youth and adults to participate in meaningful occupational exploration and choice, pre-employment occupational preparation to job-entry level competencies, inservice training for upgrading and promotion, both pre- and inservice retraining as the nature of the labor force and occupational requirements change, guidance and employment counseling, basic and general education for beginning and improved educational skills, becoming a more effective family member and homemaker, and cultural and avocational pursuits as a part of a full and worthwhile life (p. 2).

2. A basic assumption and requirement for all occupationally oriented education is that it must be an integral part of a comprehensive and complete educational system (p. 4).

3. Unemployment and underemployment are most often directly related to "employability" of which general and vocational education are major elements (p. 5).

4. A major assumption was that a comprehensive and coordinated program of general education, occupational exploration and guidance, and vocational education for youth and adults will make a major contribution to the economic level of the City and Area by reducing the unemployment and underemployment levels (p. 6).

5. A complete, or adequate, program must include: a) guidance services, including vocational guidance as an integral component; b) exploration of the world of work; c) vocational education; and, d) initial job placement arrangements (p. 6).

6. Early introduction to the concepts and ideas of world of work and occupational choice is the foundation for a successful adult work life. Acquaintance with and understanding of the broad world of work can only be developed over a long period of time (p. 72).

The State University System of Florida (1971) has developed a "High Priority Education Project" designed to:

1. Stimulate rapid and meaningful changes in the colleges of education correlative with the changes in the public education system.

2. To eliminate the stigma presently attached to vocational education.

In order to accomplish the above objectives, the operational objectives included:

1. The development of new courses or programs for educational personnel which are designed to improve attitudes. Skills and knowledge with respect to vocational education.

2. Modification of existing courses and programs designed to improve the attitudes, skills, and knowledge of all school personnel with respect to vocational education.

3. A meaningful fusion of academic and vocational curricula.

4. The development of a new concept of the role and function of counselors.

5. Development of job placement capabilities within the public school system.

The Greenwood Public Schools in Mississippi have developed a program for the comprehensive orientation to the world of work through industrial arts and vocational education which spans grades one to 12. Special attention was given to industrial arts in grades one to six, occupational orientation (occupational exploration) in grades seven to nine, interpretation of modern industry

in grades seven to nine, vocational guidance and program flexibility in grades 10 to 12.

The assumptions which underlie this program are as follows:

1. Such a program will be of equal value to college-bound students and to those going directly into the labor market. . . . All students must be given the opportunity to explore their capabilities so that they make meaningful decisions concerning their chance of a life's work. Once these decisions have been made, public education must provide a program which will facilitate these accomplishments.

2. The emphasis on occupational orientation in grades seven, eight, and nine is based on the philosophy that our young people are most receptive at this age level and that effective occupational orientation experiences at this point should result in realistic educational and career planning (Mitchell, *et al.*, 1970).

The Cobb County Public Schools in Georgia have been developing a career-oriented curriculum for all grades designed to create a new image for vocational education. It is based upon two assumptions:

1. Vocational education is a "main stream" instructional program that should complement and be complemented by all regular instructional programs.

2. Programs for vocational understanding must be an essential ingredient in the educational experience of every student if he or she is to make a wise career choice (Crews, 1969).

Projects with the Community

In St. Paul, Minnesota, the Como Park Junior High School conceived a joint project with the local Chamber of Commerce. Including the use of planned job visitations, their objectives were:

1. To encourage critical appraisal of jobs through direct observation.

2. To provide students with a feeling of what a job is like through direct observation.

3. To expand the vocational horizon of students by providing a variety of work observation experiences.

4. To establish communication between students and workers.

5. To provide students with factual, accurate, and up-to-date information about jobs present and future.

6. To provide a setting where students may test their current career aspirations through direct observation.

7. To create an awareness among students of the rapidly changing work world and the resultant implications of career planning (L. Swanson, 1966: 2).

Urban Schools. The Developmental Career Guidance Project based in the Detroit Public Schools has defined its objectives as:

1. To broaden the perceptual field of inner-city youth regarding occupations.

2. To help overcome the lack of planning for the future.

3. To provide better role models for students (Leonard, 1968).

This project was comprehensive in its use of individual and group counseling, curriculum, and field trips.

The Cleveland Occupations Curriculum began as a response to the need to translate understanding of the black youngster, his family, and the world of work with its many ramifications into meaningful action in the schools. This was done by including career development concepts, concepts about work and industrial roles, and career development skills through the junior high school curricula without regard to the subject boundaries.

The Occupational Information Materials Project in the Schools of Atlanta, Georgia was designed to develop a planned program to disseminate occupational information in the elementary schools which could assist in the development of improved self-concepts, the retention of potential dropouts, the revision of unrealistic choices, and the development of a sense of planning (Cook, 1968). This project used a multi-media approach--discs, television, and print--for purposes of information dissemination.

During the academic year 1967-68, a Career Development Program for children in the fourth through sixth grades of the Chicago Public Schools was implemented. Using group guidance techniques integrated into regular curriculum, field trips, and a variety of role-playing and art projects, the objective of the projects, the objective of the program was the bridging of the gap between

student orientation to neighborhood and community workers and the career programs of the seventh grade (Gordon, 1968).

Small Schools, Rural Areas. In addressing the needs of small schools in the southwest, three pilot programs were created under the direction of personnel from New Mexico State University and Western New Mexico University. Using a variety of media, group guidance techniques and field trips, the objectives of these programs were to enable young people in small rural schools:

1. To have an opportunity to gain information about job opportunities.

2. To assess more adequately their own individual capacities to fit into the world of work (Digneo and Shaya, 1968).

The Cochise County Project, Arizona, was also oriented to small schools in sparsely populated areas. In reorganizing vocational education into clusters, expanding guidance and testing, providing mobile facilities, work-study activities and the use of computer-assisted information retrieval and decision-making facilitation, it has addressed the following objectives:

1. To develop a comprehensive program of occupational orientation at the elementary and secondary school levels.

2. To provide special career guidance services to disadvantaged Mexican-American school youth in the schools in Cochise County.

3. To provide a wide range of work experience for students.

4. To provide special classes for students not previously enrolled in vocational education programs.

5. To provide for intensive occupational guidance and counseling of those students leaving school.

6. To provide for local support for the various phases of the project after termination of federal assistance (Gregan, 1971).

Elementary School. The Abington School District (1968) in Pennsylvania developed an experimental vocational guidance curriculum for the fifth, sixth and seventh grades. The stated objectives of this project were:

1. To develop learning experiences which actively involve the students in grades five, six, and seven in processes which are useful in making career choices.

2. To utilize the techniques of simulation, gaming, role-playing, decision-making, and dramatics in designing the learning experiences.

3. To develop materials and techniques which can be effectively used by teachers or counselors in conjunction with the language arts and social studies programs and in guidance activities.

4. To develop materials which enable the counselor to participate with the students and teachers in joint activities.

5. To determine the students' interests in studying the area of careers and the processes of career selection.

In attempting to deal both with urban education problems and the implications of career development theory, the Philadelphia Public Schools designed the "Room to Grow" program. It was conducted once a week throughout the school year for fifth and sixth grades. The objectives of the program were:

1. To improve self-confidence.

2. To provide a wide range of career experiences.

3. To develop a desirable approach to the process of career choice (Platt, 1969).

The State of Maine has developed a career development guide for the elementary school (Ryan, 1971). Both broad learning and experiential activities which facilitate career development among children of different elementary school age levels are identified in the guide. The objectives to which these programs are to be directed include:

1. Introduce the student to the world of work and career opportunities.

2. Establish the relationship of occupational skills to academic skills.

3. Develop, through exploration, a self realization related to abilities and interest for future career selection.

4. Acquaint students with problem solving techniques as they prepare themselves for the world of work.

5. Encourage the student to understand that career selection is related to the need and abilities of the individual.

6. Develop an understanding and appreciation of the interrelationship of the various careers in the world of work.

Junior High School. In applying the New Jersey Introduction to Vocations Program to Oakland Junior High, Oakland, New Jersey, a volunteer six-week summer program was developed. Students were cycled through home economics, industrial arts, science, health services and business occupations activities which included a wide range of manipulative experience, field trips and cognitive information designed to meet the following goals for students:

1. Understand the concept of work and the human satisfaction found in work.

2. Develop proper attitudes toward work and the society as a whole.

3. To understand the economics of the world of work and to gain knowledge of the major occupational fields.

4. Appraise their own interests and aptitudes as they explore a variety of vocational opportunities.

5. Become aware of their occupational talents and capitalize on them through real and vicarious experiences.

6. Increase their ability to evaluate future vocational choices (Dzurenda, 1969).

Salem, Oregon has developed a one year course designed to assist ninth graders with educational and career planning (Oregon State Department of Education, 1968). The objectives of the program include:

1. To enable students to gain knowledge and understanding of possible social skills in applying for work via application and job interviews.

2. To gain understanding of employers' viewpoints and requirements.

3. To broaden knowledge of the general economic structure as related to labor force needs.

4. To understand the importance of opportunities offered through high school and post high school training programs.

5. To assess one's own strengths and weaknesses.

The Hosterman Junior High School Career Development Committee (1971) of the Robbinsdale Area Schools, Minnesota has developed a guide to career development in grades seven, eight and nine as it can be facilitated by English, mathematics, science and social studies units. The assumptions underlying the development of clusters of occupations which can be related to specific subject areas are:

1. That career exploration, instead of being a difficult and clumsy addition to the teaching process, can actually become an efficient, affective vehicle for all types of learning.

2. Curriculum experiences provided need to be interdisciplinary or, better still, non-disciplinary in nature.

3. The student must be allowed to discover through interesting and meaningful (to him) activities that planning for career choices and maintenance is an ongoing process.

4. Career development is essentially a process of relating self to occupations.

The "Introduction to Vocations Course" which has been introduced on a one-year basis throughout the State of North Carolina (1967) has as its objectives an overarching goal to develop student planfulness as well as the following:

1. To help students in self-appraisal in relation to a variety of vocational opportunities.

2. To help students gain firsthand knowledge of the changing employment patterns and opportunities in North Carolina.

3. To help students understand the basic process of production, processing and distribution in the American economy.

4. To acquaint students with major occupational fields.

The Rocky Mountain Educational Laboratory (1969) in cooperation with personnel of the Colorado State University have been

developing a program designed to influence work-relevant attitudes, concepts and information targeted on seventh grade pupils. The assumption on which this program was based includes:

1. All seventh graders are required to enroll in social studies and language arts where this program is focused. Thus, a large number of pupils can be influenced by a minimum number of teachers.

2. It was assumed that the curriculum at this level was broad and encompassing enough to provide tolerance for emphasis on occupations without adding new units or additional loading to the present curriculum.

3. A primary purpose of the seventh grade language arts and social studies curricula is to help youth understand the world of the social forces with which they live and to be able to communicate these ideas. One of the important concepts accommodated in both language arts and social studies is productive citizenship. One of the major problems of productive citizenship is work-human energy expended over time.

Senior High School. The Grossmont Union High School District (1965) developed a vocational guidance program addressed to the following objectives:

1. Students would learn about themselves at their own need and request.

2. They would learn about the world of work through a variety of experiences in and out of class.

3. They would begin the process of making suitable career plans.

4. They would learn about successful Americans.

5. They would actively participate in the process of class management and decision-making.

Oregon has been redesigning secondary general education as well as vocational programs. Its efforts in this direction are based upon two assumptions:

1. Secondary schools should be preparatory institutions for all students.

2. A secondary school preparatory program should tie the curriculum to the goals of students in such a way that they are motivated while in school and also better equipped to choose from among many alternatives as they take the next step after high school. Most high school experiences will be centered on knowledge and skills common to the occupations which comprise a cluster or family (Parnell, 1969).

Paola High School in Kansas developed and demonstrated a coordinated and integrated program of occupational information, selection, and preparation. The objectives were:

1. To develop and organize a coordinated program of vocational education which would include occupational information, selection, and preparation in teaching techniques in the program.

2. To give guidance in self-assessment by the students relative to their choice for a location (Agan, 1968).

The Lorain County, Ohio Schools have developed a program tying together the use of the General Aptitude Test Battery (GATB) and career exploration for secondary school students. Durgin (1971) reported that this program has been developed with the basic philosophy that every student should have the greatest opportunity for occupational education with his goals, interests, aptitudes, and needs allowed full consideration.

It is also believed that counselors can help students develop self-awareness of their skills, interests, and abilities through this program. The following objectives were established as desired outcomes:

1. To create an awareness of occupations and their value in the world of work.

2. To assist students in evaluating and coordinating interests and abilities with realistic occupational goals.

3. To bring to the attention of students occupational trends and future needs.

4. To assist students in developing some type of occupational plan.

5. To assist students in developing an attitude of the importance of occupational preparation (Durgin, 1971).

Senior High School, Emphasis on Technology. A Computer Assisted Vocational Information System (CVIS) has been developed in Willowbrook High School, Villa Park, Illinois. In using computer technology to facilitate acquisition by students of occupational information, the project was intended to accomplish the following:

1. To present to students expanded horizons of occupational possibilities.

2. To teach students valid methods of making decisions about vocational choices.

3. To aid students to choose out of a vast number of possibilities those areas which best fit their interests and abilities.

4. To do the above in a unique way which will capture and hold student attention by developing personal involvement.

5. To make occupational information, including training opportunities, readily available to counseling and teaching staff.

6. To provide research data on factors involved in vocational decisions and job satisfactions.

7. To provide information about the range of local job opportunities (Harris, 1967).

Impellitteri (1968) and his colleagues at The Pennsylvania State University also developed a computer-assisted system oriented to the following objectives:

1. To provide an easily updated individualized occupational information retrieval system.

2. To develop a process whereby youth can develop an individualized framework of the occupational structures.

3. To provide an experience for youth to acquire operational opportunities by simulated practice.

Summary

While there is no pretension that the projects discussed in this section are exhaustive of those which have been generated since 1963 or in existence now, they do represent selected examples of those which specify assumptions or objectives to which the

project is committed. Frequently, it is evident in examining project reports that what is described is what will be done or has been, not why it has been done, nor the terminal behavior expected of clients. In these cases, one must extrapolate, from other than direct expressions, the philosophy to which projects are addressed.

On balance, the project objectives and assumptions reported are comprehensive in their response to local conditions as these are defined by characteristics such as the inner-city, the rural small school, community resource availability or the needs of specific target groups--Mexican-Americans, blacks, rural poor, out-of-school youth and adults or a total student population. In addition, it is apparent that most projects are more than simple additions to ongoing programs. They often represent efforts to articulate program elements across disciplines or professional specialties as well as longitudinally. There are also efforts to link up with community agencies in establishing mutual objectives.

It is fairly obvious but worth noting that the majority of current and completed career program efforts have been at the elementary and junior high school levels; and, these efforts generally deal with pupils' self and occupational awareness. Relatively speaking, little has been done at the senior high school level in terms of developing career development programs which infuse the total curriculum. In terms of the state-of-the-art, the most work remains to be done at the senior high school level.

Finally, there is in most of the projects reported, a significant emphasis on individual self-awareness, developing personal preference, and planfulness, understanding and being able to relate one's own characteristics to occupational and educational alternatives. Such emphases have seemed to find their roots in the growing body of theory and research about career development and in the apparent demands upon self-definition which is a characteristic of our current levels of social and technological complexity. While career development has been considered by many as the domain of vocational guidance, its implications have also affected evolving conceptions of vocational education. These two streams of professional educational activity seem to interact in career education. The next section will examine career development theory.

THEORETICAL BASES

Many of the theoretical inputs to career education have already been identified in other sections. However, it is necessary to note specifically that much of career education has its genesis in career development theories. As yet, there is no single career development theory but there are theories which combine to explain much about the attitudes, knowledge, and skills which contribute to or impede career development. This collection of explanations is pertinent to Katz's (1969) observation that: "The foundation for a theory of intervention should include some understanding of the phenomena with which the intervention is concerned--for example, what is the nature of career decisions and how are they made in the absence of a planned professional intervention" (Katz, 1969: 127). Budke (1971) has already surveyed in specific fashion much of the appropriate literature in this area. Thus, his efforts will not be duplicated here. The following sections will describe major rather than specific points of emphasis important to this theoretical domain.

Occupation or Career

From the time of Frank Parsons (1909), in the first decade of the twentieth century, the major decision question faced by men, and sometimes women, was what occupation to enter. That question was usually answered in terms of what the likelihood was that one's aptitudes and skills would mesh with the requirement of an occupation or two in form of behavior described as occupational success. The time-frame was usually some decision point--leaving school, changing job, separation from military service--and the decision focus was immediate job entry.

The concept of career, however, responds to behavior more broadly conceived. Super (1961) has asserted that, "A career is the sequence of occupations, jobs, and positions in the life of an individual whether these are or are not vertically and laterally related." Further, Super (1954, 1964) has indicated that the emphasis in the psychological or sociological study of careers is on the continuities and discontinuities in the lives of individuals and on the similar patterns in the lives of groups, whereas in the psychology and sociology of occupations the emphasis is on the characteristics of occupation as revealed by the people in them.

Bush (1968: 17) has indicated that

> a career is a term sometimes used to indicate the type of job or the line of work a person pursues. It might be more meaningful to define a career as simply a lifetime of work and learning or the occupational path a worker pursues. A career is made up of many tasks, jobs, steps, and levels of work extending over a lifetime. In other words, a career is the sum of all the jobs filling a lifetime.

Wrenn (1964: 41) has indicated that one way "to suggest the new emphasis is to say the counselor helps the student to define goals, not merely to inventory capacities. And it is clear that these must be life goals, not occupational goals only."

Tiedeman (Tiedeman and Dudley, 1967) has contended that career is the development of a cognitive structure by a person which allows him to engage in the exercise of initiatives at work with a feeling of fulfilling his desires. The concept of careers and that of life goals associated with such a concept were corollary to the theoretical rise in concern for human vocational/career development which has been apparent during the past 25 years.

Developmental Perspectives

Theories which have a developmental emphasis are usually the most comprehensive, the most concerned with longitudinal expressions of vocational behavior, and more inclined to focus on the individual self-concept than are some of the other theoretical perspectives on career development (Herr and Cramer, 1972).

The work of Ginzberg, *et al.*, (1951) was an early formulation of vocational development (the term antecedent to career development). Among the concepts this approach yielded were:

1. Occupational choice is a developmental process: it is not a single decision, but a series of decisions made over a period of years. Each step in the process has a meaningful relation to those which precede and follow it.

2. The factors which influence the ultimate vocational choice include individual values, emotional factors, the amount and kind of education, and the impact of reality through environmental pressures.

3. The choice process can be defined in terms of life stages which place different demands upon the

individual. Compromises between wishes and possibilities contribute to an irreversibility as the process continues.'

4. The gross phases of the vocational choice process can be labeled fantasy, tentative, and realistic with the tentative period further divided into dominance by interest, capacity, value and transition stages.

5. Vocational behavior finds its roots in the early life of the child and develops over time (p. 185).

Super's work straddles in time the efforts of Ginzberg and his associates and has continued to the present with longitudinal research designed to confirm, refine or reject his theoretical speculations about career development. The work of Super (1957, 1969a, 1969b) and his colleagues (Super, *et al.*, 1957, 1963) has been the most comprehensive and persevering of the theoretical approaches currently available. Among the contributions of this effort are the following elements:

1. There is a stress on the essential interdependence of personality and of vocational development.

2. The primary construct in career developments is the development and implementation of the self-concept. The individual chooses occupational or educational alternatives which will allow him to function in a role consistent with his self-concept.

3. The self-concept is a function of one's developmental history.

4. Career development proceeds through a series of increasingly complex vocational developmental tasks at different life stages.

5. Life stages can be defined in gross terms as growth, exploration, establishment, maintenance and decline. Each of these is susceptible to being subdivided into further tasks and demands.

6. Factors existing internally and externally to the individual influence the choices made. These factors continue to narrow the options the individual will consider. Development describes a process of convergence, synthesis and increasing specificity.

7. The concept of vocational maturity is amenable to definition at different ages.

8. There is importance to acquiring vocational maturity of occupational information (educational, psychological and economic) as well as planning, independence, crystallization of interests, and specifications and implementations of preferences. In this regard, it is interesting to note Osipow's (1968: 229) observations about Super's work. He contends:

Of all the theorists, only Super has written extensively about how career development may be corrected if it has gone astray or how it might be facilitated in the normally developing individual. . . . The vocational development tasks enumerated by Super point the way to programmatic and individual approaches to correct and facilitate career development. According to Super, specific programs for adolescents should expose them to the necessary information for making the decisions required of them at that stage of development in order to avoid future errors or to correct past decisions. All through the life cycle, programs may be developed to enable people to make these decisions on a sounder basis.

Tiedeman (1961) and his various colleagues (Tiedeman and O'Hara, 1963; Tiedeman and Dudley, 1967) have also speculated systematically about career development. Their wide-ranging concepts include:

1. The evolution of vocational identity is dependent upon early childhood experiences with the family unit, the psychological crises--as defined in terms of Erikson's (1963) constructs--encountered at various developmental stages and the agreement between the society's meaning system and the individual's meaning system.

2. The intimacy of self-concept and career concept is to be considered.

3. Individual personality is shaped by perceptions of career choices and to some degree by the individual's conformance to the norms and values of those persons already established within the vocational setting.

4. A view of career development life stages can include two gross substages: anticipation of or preoccupation with career goals and implementation

or adjustment. Each of these has substages. The substages of the former include exploration, crystallization, choice and clarification. The substages of the latter include social induction, reformation and integration.

5. Career development is a continuing process of differentiating ego identity.

6. The school system or guidance methods can order the stages of career development and personal trends can be given new direction or even reversed.

7. The individual's perceptual structure of work is the gyroscope directing his career.

8. The power of an individual's purpose to shape choice and action must be realized.

9. Careers are apparent by grade nine, the rudiments of them earlier.

10. It is possible to choose educational and vocational pursuits on a rational basis . . . when one chooses on a rational basis he has opportunity to lay out alternatives, to assess both wishes and risks, to examine favored alternatives, and to construct a definition of himself in situations which guide his pursuit of the elected course (Tiedeman and Dudley, 1967: 180).

Gribbons and Lohnes (1968), as a result of a seven-year longitudinal study of career development of 111 boys and girls from eiththh grade until two years after high school, were able to add some theoretical validity to the work of Super, *et al.* and to Tiedeman, *et al.* In particular, they contributed the following concepts:

1. That girls and young women have careers just as do boys and young men.

2. Many students are ready for vocational planning in the eighth grade or before.

3. Different patterns of career processing exist in different persons. Included are:

   a. Constant Maturity: Consistent, persistent, realistic pursuit of the first stated goal.

b. Emerging Maturity: Passage through the stages and tasks of Super's developmental model.

c. Degeneration: Progressive deterioration of aspirations and achievements, accompanied by frustration and loss of status.

d. Constant Immaturity: Persistent fixation on fantastic, unrealistic goals with no advances in achieved level (p. 194).

4. Vocational maturity is a most meaningful developmental concept, it is convergent with the passage of time, it is persistent over time, and it is differentiated into a multidimensional syndrome of traits, the kernel of which is informed planfulness.

Personality Perspectives

The major assumption of these approaches is that differences in personality structure, reflect different need predispositions, the satisfaction of which is sought in occupational choices. Thus, different career areas are populated by persons of different need or personality type. These approaches are characterized rather consistently by classifications of personality type or need category which directly or indirectly are related to gratifications available in different classifications of occupations (Herr, 1970: 23). This does not mean that the theories reject the importance of a developmental perspective being defined as a longitudinal process.

Roe (1956), for example, has examined and theorized about the relationships between early home environments, their implications for personality formation and, ultimately, occupational choice. Among the concepts she has provided are:

1. Personality differences evolving from different child-rearing practices exist and are related to the kinds of interaction that persons establish with other persons--toward or away from--and with things.

2. Securing opportunities to express individual styles of behavior is inherent in choices made and in vocational behavior. In this sense, occupational choices are processes of self-categorization.

3. One can describe the occupational structure in terms of fields--service, business contact,

organizations, technology, outdoor, science general cultural, arts and entertainment--which describe more or less orientation to or away from people or things as well as levels of activity--professional and managerial, semiprofessional, skilled, semiskilled, unskilled--which represent complexity, responsibility, education, and to some degree genetic heritage reflected in career mobility. At a psychological level, such a theoretical position validates the increased concern for dealing with occupational clusters (Maley, 1967).

Holland (1966) has also emphasized level hierarchies within occupational environments as well as the importance of self-knowledge in relation to choosing. His theoretical position includes:

1. Self-knowledge is important to the individual's movement through educational decisions to occupational environments.

2. Individual behavior is a function of the interaction between one's personality and environment and, thus, choice behavior is an expression of personality.

3. People seek those settings and occupations, including curricula, which permit expression of their personality styles.

4. Since persons inhabiting particular environments, vocational or educational, have similar personality characteristics, their responses to problems and interpersonal situations are likely to be similar.

5. Personality types and environments can be classified similarly as those which are realistic, intellectual, social, conventional, enterprising and artistic.

Decision Perspectives

A number of theoretical approaches have been focused upon the matter of decision-making itself. Fundamentally, the notion is that an individual has several possible alternatives or courses of action among which to choose. Each event has a value for the individual which can be scaled. Each event also has a probability of occurrence which can be estimated. If for each course of action,

the value of each event is multiplied by its probability and these products are summed, the sound decision from this point of view would be for the student to choose the alternative in which the sum of the expected "values" is the greatest (Hills, 1964). Among the variety of inputs to such a position are the following:

1. Choice occurs under conditions of uncertainty or risk (Brayfield and Crites, 1964).

2. A choice between various possible courses of action can be conceptualized as motivated by two interrelated sets of factors: the individual's valuation of different alternatives and his appraisal of his chances of being able to realize each of the alternatives (Blau, *et al.*, 1956: 533).

3. The process of making a decision between uncertain outcomes requires reconciliation of several general factors: the relative valuing of the outcomes, the cost of attaining the outcomes, and the probability that each outcome may occur (Davidson, *et al.*, 1957).

4. Decision-making includes the identifying and defining of one's values; what they are and what they are not, where they appear and where they do not (Katz, 1966).

While not necessarily conceived within decision theory per se, such perspectives emphasize the importance to one's approach to decision-making of one's socioeconomic background. For example, it is generally well-established, that levels of aspirations are reasonably constant across social strata but that expectations that one can attain his aspirations vary. Thus, it is more likely that a person from a disadvantaged socioeconomic background will see himself unable to attain his aspirations than one from a more advantaged economic background. In turn, such expectation/aspiration differences will also affect orientation toward decision-making or choices of various kinds. The place one occupies in the social strata is also likely to affect the psychology surrounding the type of information or support one receives relative to alternatives available or appropriate. In this sense, career education speaks to the need for equalizing information availability and accuracy for all segments of the population. The intent is to remove from information processing the filters caused by one's socioeconomic condition which serve to provide for selectivity of information delivery and less than free and informed choice.

Summary

The selected theoretical bases identified here serve as support for a number of assumptions on which career education is based. In particular, they assert:

1. Career development is an ongoing process which extends from infancy through at least young adulthood. Thus, the time when programs mounted to intervene in career development should begin is during the first decade of life. This is the nursery of human nature and the time when attitudes are formed toward the self or the world which ultimately have implications for career commitment or rejection. It is during this time that children learn to see themselves as adequate or inferior, as superior or worthless, and these self-perceptions are related to such areas as self-concept development, mastery of developmental tasks, decisiveness or indecisiveness. Equally obvious, however, is support for articulated programs beginning at the elementary school level and continuing into late adolescence or adulthood (grades 13-14 and beyond).

2. Career development can be described in terms of learning tasks, frequently culturally defined, which are important at each stage of development. As in any developmental emphasis individuals will differ in their readiness for career development or the ways by which they approach the tasks subsumed by it. These differences in readiness are complex. Some have to do with the values and attitudes related to socioeconomic backgrounds. Others have to do with rate of physical maturity. Together, however, differences in readiness suggest the need for different types of experiences to be available at any given educational level so that opportunities to facilitate career development can be tailored to individual styles and characteristics.

3. Career development is modifiable. Thus, the stages identified in theory through which the process moves can be accelerated or changed as a result of behavioral expectations of individuals. The structure of the school, the timing of decision points, cultural expectation can each affect the unfolding of career development.

4. Since career development is tied to physical and personality development, its facilitation should not be compartmentalized or isolated. Rather the attitudes, knowledge and skills which make up career development should weave through and be reinforced by many educational experiences and the attitudes of those who monitor the experiences.

5. Because the potential exists to identify the attitudes, knowledge and skills which make up career maturity or development, it is possible to develop objectives which encompass these factors. In addition, processes and experiences likely to facilitate the accomplishment of these objectives can be identified and these modes of stimulating career development can be placed along a developmental time line integral to the educational process. In this regard, it might be noted that a displaced or unemployed adult may be as illiterate in terms of career as an elementary child. Indeed, he may need to consider the same types of concepts about himself or about the opportunities available to him as would be appropriate to an elementary child doing initial planning and speculation. What differs, then, is not the concepts between the child and the adult but the facilitation techniques or the types of translation necessary.

6. Where career development theories have direct implications for education, vocational education or guidance, it is as they focus on the student or adults understanding. As Katz (1969: 138) has noted "Cognition--not only about courses of action but about self--seems central in all of them. Whether these decisional approaches contribute to a theory of guidance or not, they seem to require the student's engagement in developing a theory about himself."

CONCLUSIONS

Analysis of available historical, philosophical, conceptual and theoretical literature offers substantiation that the antecedents of career education reside in both vocational education and guidance. In addition, this literature indicates that the term career education, so far as it is presently articulated, does have significant support from these knowledge domains.

As indicated in the historical analysis, many of the elements which appear to be incorporated in present descriptions of career education have been advocated in one form or another for at least the past century. The reasons for such advocacy have changed and there have been refinements of the program elements supported as knowledge and experience pertinent to particular concepts has grown. In general, the rationale surrounding legislative activity at particular points in time has paralleled the conflicts or emphases that were current in the particular period of history.

During the past century, much of the support for the antecedents to career education has come from the needs of a labor market changing from an agricultural to a technical character, from the emphases by which the occupational structure was defined at different points, and pragmatic, limited responses to these demands by educational or social institutions. Within such an historical context, the individual needs for knowledge, attitudes, skills necessary to maximizing free and informed personal choice have not typically assumed a priority status. However, during the past decade, emphases in legislative activity, conceptual behavior and rhetoric have begun to respond to this latter area.

It seems conceivable that the current emphasis on developing "personal competence" as well as "competent persons" is a reaction to the changing characteristics of work, the acceleration of opportunities for personal choice and fulfillment in work alternatives, as well as a growing awareness of the affective component of choice and work behavior. As indicated previously, several observers have addressed "the burden of decision" faced by current youth. This coupled with the rapidity of change in the personal and social aspects of life lay stress upon providing not only the skills required to be productive but the attitudinal support which permits one to be committed to being productive, to identify himself as a competent person, and to maximize ways of choosing preferred ways of being productive.

When the assumptions or the objectives of projects and programs current and pertinent to career education are examined, one finds variety within emphases consonant with the importance of developing self-awareness, decision-making prowess, planning as well as preparation for employability. Depending upon where the project is located and what the stimulus for its inception was, the particular emphasis in the project may be guidance, vocational education, curriculum, or a comprehensive integration of these.

Projects exist which pilot the establishment of effective relationships between schools and community resources or which are designed to meet the needs of particular groups of students, adults, or out-of-school youth. By and large, the projects which exist are unidimensional, nonsystematic and nonlongitudinal. In other words, few operational examples of the levels of integration, synthesis, or longitude as presently reflected in expectations for career education seem to exist in operation. In most situations, projects seem to be extensions or additions to the existing missions of institutions in which they are housed rather than products of new organizational shapes in education or extensive redefinition of educational purposes in kindergarten to grade 12 or beyond. As indicated previously relatively more emphasis in career programs has been expended at the elementary and junior high school levels than at the senior high school or grades 13 and 14.

The evolution of career development theories during the past two decades has been instrumental in stimulating concepts and programs which have a prevocational character placed earlier in the life of children. Rather than assuming that educational responses to vocational preparation should be confined to the secondary school or post secondary school, the programs, projects, and conceptual models currently extant are encompassing the implications for career orientation, career identity and knowledge which reside in the early life of the child.

In addition to focusing on career awareness and exploration earlier in the life of the child or adolescent than had been true until recently, vocational education experiences are being broadened through the implementation of cluster curricula and placed at the upper elementary, middle school, junior high school levels with the expectation that such structures will provide the opportunity for students who leave before graduation to acquire some personal employment skills.

The further assumption is that by introducing concrete, "hands on" or manipulative, opportunities early in the school life of children, the meaningfulness or relevance of education will be enhanced. Career development and logic have combined to accentuate the fact that employability is not just a function of one set of experiences at a particular point in time, but is rather

something which grows and develops over time as a result of interactions with people, with general education, with appropriate resources as well as with vocational education.

Career development theory has stimulated support for educational responses which are aggressive and facilitative in the area of career identity, choice-making and the other personally affective aspects of maturation. In guidance, for example, Herr and Cramer (1972) have contended that vocational guidance can be viewed as a stimulus or as a treatment. They advocate more of the former. In their perspective it is not efficient to wait until development goes awry and then deal with it under crisis conditions. Instead they identify the efficacy of taking a systems approach which involves all aspects of the school and the community in providing experiences and resources to foster what they describe as "vocationalization." To a large degree such a position is not confined to vocational guidance but to the total educational complex and, in these terms, represents in substance the frame of reference from which career education flows.

This paper has not been focused upon the research or empirical base which has tested or evaluated the historical, philosophical or theoretical themes described. There is, however, no doubt that the research findings about separate elements comprising career education are less comprehensive and more vulnerable than is the base of speculation giving career education construct validity. This observation does not imply that pertinent research is nonexistent. Rather, the research is principally focused on parts of the elements of career education treated independently from one another and not on the interaction of various career education "treatments" or "interventions." Research priority must be given to identifying the combination of career education treatments at the most appropriate grade levels in relation to the particular student characteristics which result in the most powerful programs.

One knows about the efficacy of doing something as compared with doing nothing. However, little evidence is available comparing the effects of doing one thing rather than doing something else to reach a specific goal or the much more complex questions of the interactions of treatments, grade levels, and student characteristics. Also, little is known of the effect of systematically providing a range of experiences, opportunities and structural changes over an extended period of time. The philosophical, historical and theoretical support for such an approach is wide and deep; the empirical and research support for the concept is yet to be compiled.

The research requirements stimulated by career education are not confined to the experimental designs necessary to examine treatment interactions or interactions of treatment with time periods or the characteristics of consumer population. Other areas

of crucial concern are the identification of effective career education implementation strategies; problems to anticipate in implementation; clues to acceptance; retraining and inservice requirements of personnel to be involved in career education.

In sum, general research needs exist in such areas as the following:

1. Determine how curricula can be most effectively constructed which enable students of different characteristics to learn about various types of work at higher levels of specificity as they proceed through formal schooling.

2. Determine the relationships between academic course content and job requirements so that the instrumental value of education can be reinforced throughout the total curriculum.

3. Determine the efficacy of combining particular educational media with individual learning styles to facilitate acquisition of career education goals.

4. Determine what kind of community and industrial resources contribute to the attainment of specific career development behavioral goals. Under what conditions and for whom does this occur?

5. Compare on different criteria of career maturity the status of youth who have had work experiences of different kinds with those who lack such experience. Ascertain whether youth with planned work experiences are more responsive to career planning than those who are exposed only to simulated experiences.

6. Identify those factors, if any, related to restricted economic status which limit the ability of such youth to cope with skill mastery, attitude development, and achievement motivation. Design experiences which can systematically overcome such deficits.

7. Examine ways by which training durations and time spent in vocational experiences can be made more flexible to accommodate individual differences.

8. Inventory legal and legislative constraints as well as those restrictions on union membership or access to apprenticeships which may impinge

upon the creation of work experiences for large numbers of students as well as the in-school and out-of-school experiences for particular students. Design strategies by which such constraints can be removed.

9. Intensify research on early childhood learning relative to such areas as achievement motivations, career motives and occupational valuing and the ways these areas bear upon later career planning and adjustment.

10. Intensify research on such questions as:

    Do students think in terms of careers or entry jobs, school subjects and college majors or industries?
    Is indecisiveness a general behavior pattern or is it restricted to career choice?
    How widespread is indecisiveness among student populations of different levels and characteristics?
    What are the characteristics which differentiate those whose decisions are based on security considerations from those who are risk-takers?

11. What forms of incentives would be required to have adults in need of retraining reaffiliate with a public school system to meet certain career needs?

These questions are general and superficially stated but they indicate the range of research and evaluative areas for which more must become known if career education programs are to be implemented most effectively. The subquestions and alternative hypotheses which reside in the general areas identified here are of sufficient magnitude to support the need for a major research effort giving specific attention to career education to be mounted. As indicated in this paper, the construct validity of present models of career education has much historical, philosophical, and conceptual support. The next step in making career education a significant part of education is to extend inquiries into other forms of validity appropriate to identifying not only what career education should yield but what outcomes actually result.

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